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ABSTRACT

Postsecondary plans of over 16,000 freshmen and seniors enrolled in Pennsylvania's public and private high schools during 1983-1984 were studied. Attention was directed to the effect of community, school, family, and student personal factors and characteristics that influence student decisions to attend various forms of postsecondary education. Based on the findings, recommendations to improve college attendance were offered for schools, the Pennsylvania Department of Education, private business, industries, and associations, and the legislature. The survey administered to seniors was the College Board's Survey of Postsecondary Education and Careers; the freshmen survey was especially constructed for the study. The analyses showed that the single factor that most influenced students' plans for postsecondary education was their parents' preferences for their postsecondary activities. The students' levels of ability, their high school programs and achievement, and their family socioeconomic status had some modifying influence on their plans. Educational and career aspirations and career information, educational opportunities, and financial aid also influenced students' plans. Included are the recommendations, copies of the survey instruments, and a list of participating secondary schools. (SW)

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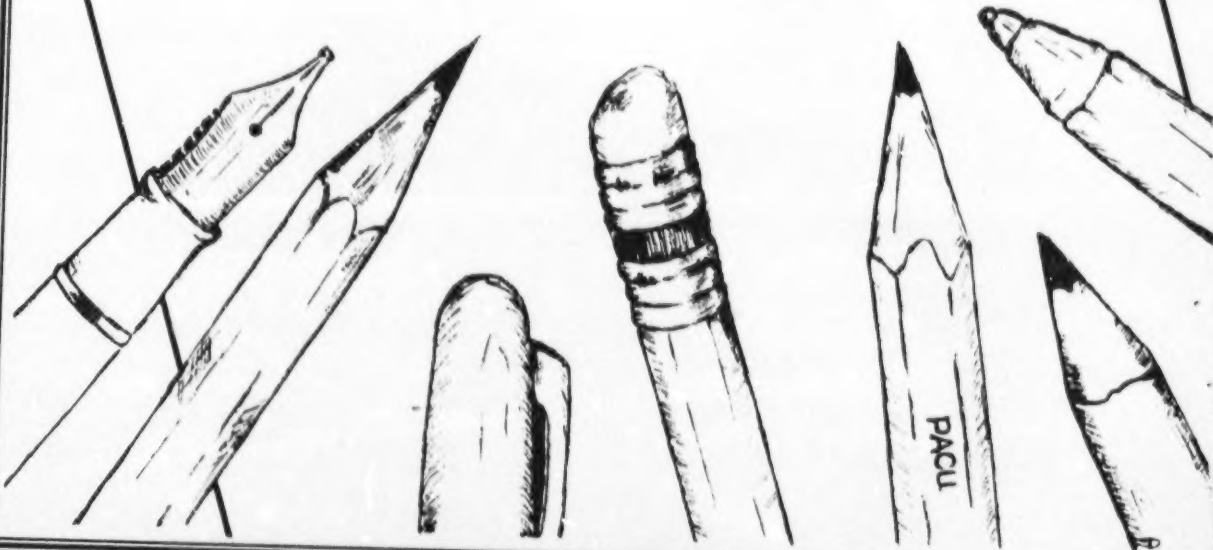
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**PARENTS, PROGRAMS AND PENNSYLVANIA STUDENTS'
PLANS FOR POSTSECONDARY EDUCATION**

**A Study of 1983-84 Freshmen and Senior
Plans for after Graduation from High School**

sponsored by the

**Pennsylvania Association of Colleges and Universities
800 North Third Street
Harrisburg, PA 17102**

May, 1984

ACKNOWLEDGEMENTS

No study of this magnitude can be completed without the support of many persons and organizations. We want to thank Dr. Doreen E. Boyce, Director, The Buhl Foundation, for her personal encouragement and the Foundation's financial support which made this study possible.

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Several persons assisted Dr. Davis in the conduct of the study. Dr. Michael L. Tierney, Associate Director, Higher Education Finance Research Institute, University of Pennsylvania, was helpful in the design of the study and guided the regression analyses of the many factors that affect student plans. Carol L. McCart, Ph.D. candidate and Graduate Assistant at the Center for the Study of Higher Education, Pennsylvania State University, designed and field-tested the student-parent interview schedules, trained the interview staff, and helped conduct the interviews. Dr. Kingston Johns, Jr., Education Consultant, Fort Myers, Florida, assisted in the analysis of the survey data and the writing of the technical reports on the surveys and student interviews. Nancy Niedenthal, Patricia Templeton, and Lauren Tierney conducted student-parent interviews. Donna Byle and Nancy Niedenthal prepared the many draft and final copies of the technical reports and this document.

PHEAA's research and statistics staff, Lynn Crone, Debbie Heberle, and Miriam Cooper performed the extensive computer analysis of the voluminous study data. Dr. J. Robert Coldiron, Chief, Division of Educational Quality Assessment, Pennsylvania Department of Education, provided the study staff with EQA data for the participating schools.

Gary Young, Vice President, PACU, served as liaison to the study staff and Advisory Committee and assisted in the management of the study. Art Ciervo, Director of Public Information and Relations, Pennsylvania State University, and the members of his PACU Public Information Committee made the results of this study widely known throughout the Commonwealth.

Lastly, we are especially thankful to the study Advisory Committee members who volunteered their time and devoted their expertise to making this study a success.

James A. Ream
President
Pennsylvania Association
of Colleges and Universities

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EXECUTIVE SUMMARY

Pennsylvanians participate in postsecondary education at a much lower rate than do citizens of contiguous states and the nation. We have 180,000 fewer college graduates and 140,000 fewer students enrolled in Pennsylvania than we would have if our participation rates were equal to the nation's. To determine why Pennsylvanians are less likely than others to go on to school after completing high school, PACU conducted a study of the postsecondary educational plans of over 16,000 freshmen and seniors enrolled in Pennsylvania's public and private high schools in the 1983-84 academic year.

The goals of the study were: (1) to identify and assess the relative influence of community, school, family, and student personal factors and characteristics that influence student decisions to attend various forms of postsecondary education; and, (2) to develop recommendations for actions to enhance the probability that more Pennsylvania high school graduates will participate in postsecondary education in future years.

The analyses showed that the single factor which has the most influence on students' plans for postsecondary education is their parents' preferences for their postsecondary activities. This factor is most important for all student groups, *regardless* of their family incomes or racial/ethnic group membership. The students' levels of ability, their high school programs and achievement, and their family socioeconomic status have some modifying influence on their plans. Their educational and career aspirations and the information they receive about careers, educational opportunities, and financial aid to help shape and achieve their aspirations also influence students' plans. But the attitudes and preferences of parents are consistently most influential.

There are many actions which can be taken by secondary schools, the Department of Education (PDE), the postsecondary institutions, the Pennsylvania Higher Education Assistance Agency (PHEAA), private businesses, industries, and associations, and the General Assembly to enhance participation in postsecondary education. These actions include the following.

Schools should assess the postsecondary career plans and activities of students when they enter high school and begin at that point to offer students and their parents more and better information on the long-term effects of high school program choices on post-high school opportunities. Schools should assign counselors to regularly work with parents to provide them more data on students' educational and career opportunities. The PDE, PHEAA, and the schools should take advantage of existing computer- and media-based technology to establish statewide systems for disseminating information to students and parents on financial aid and educational and career opportunities.

Postsecondary institutions within the several geographic regions of Pennsylvania should develop cooperative arrangements through which admissions staff and faculty on each campus would represent all institutions in that region in many activities directed toward enhancing general awareness of available postsecondary opportunities. These activities might include special college night programs for freshmen and their parents, group visits to campuses, guest lectures at

high schools by faculty members, and appointments of "ninth grade representatives" to handle communication between students and parents. Postsecondary institutions should develop and distribute special information for ninth graders and the parents of all high school students on educational opportunities and financial aid through direct mail and other technologies. Institutions should work with local businesses and schools to plan and conduct "education and career fairs" at local shopping centers. They should also work with PDE Intermediate Units to develop annual schedules of college and career events within and among districts.

PHEAA should expand its financial aid information dissemination and counseling activities through direct mail, the media, its computer-based network, and its Regional Offices. Special materials designed for parents as well as students would be widely distributed. PHEAA and the Pennsylvania Association of Student Financial Aid Administrators should offer more workshops on financial aid to more guidance counselors.

Local businesses and industries should work with local and civic and professional associations and the community's schools to establish "adopt a school" plans in which they actively support the schools, their programs, and their students in all ways that are possible. These plans might include such activities as donation of equipment and other materials to schools for instructional purposes, volunteer appearances by professionals and other career representatives at schools to lecture on occupational characteristics and requirements, development of informational brochures and other materials which describe careers and employment opportunities to students and parents, and devotion of space for "education and career centers" to provide students, parents, and others with counseling and information services.

To increase public awareness of the benefits of postsecondary education, the General Assembly should declare a week in early Spring of each year, "Postsecondary Education Appreciation Week" in which public and private activities throughout the Commonwealth bring attention to the value of education beyond high school.

To assure all eligible and needy aid applicants a guaranteed minimum State Grant award in any given year, the General Assembly should establish the State Grant program as an entitlement program. Funds should be appropriated to help the Department of Education, PHEAA, and school districts develop and implement a computer-based education and career guidance system. Legislation should be passed to require secondary schools to provide at least one certified guidance counselor for every 300 students.

The General Assembly should pass legislation to provide private firms tax incentives for contributions of money, equipment, and services to both public and private educational institutions to promote cooperative arrangements between business and industry and educational institutions.

Because all members of the Commonwealth benefit from an educated populace, all interested and concerned parties are urged to recommend additional actions to enhance participation in postsecondary education.

I. INTRODUCTION

Pennsylvanians are less likely than residents of other states to have gone to college and less likely to have graduated from college. They are also less likely to go to college (See Box). If our college participation rates were equal to those of the rest of the nation, 180,000 more Pennsylvanians would have graduated from college, and 140,000 additional students would currently be enrolled.

Why should anyone care that our college participation rates are lower than the rates of citizens of contiguous states and the rest of the nation? Why should anyone care that at least 30 states' high school graduates are more likely to continue their education beyond high school? There are several reasons for concern.

Businesses, industries, and other employers should be concerned because college graduates are generally more productive than other employees. College graduates generally work longer hours, for more years, and are less likely to experience unemployment than others. Their training in science and technology expands their capacity for the research and development of new machines and new ways of production. They generally have better comprehension of working requirements and are more efficient. They are more adaptable and able to move into more productive occupations when opportunities arise. College education also increases the capacity of individuals to benefit from on-the-job training and other adult learning opportunities.¹

State and local governments should be concerned because college graduates are more interested and involved in governmental affairs.² College-educated persons are more active campaigners in political and civic causes and they are more likely to follow public affairs.³ There are higher voting rates among college alumni than other citizens.⁴ Because college graduates and persons who attend other forms of postsecondary education generally will earn more money over their lifetime than persons with no postsecondary education, they are expected to pay more taxes to directly support state and local governments.⁵

Community organizations and non-profit civic and other service organizations should be concerned because college graduates are more likely than others to do volunteer work.⁶

Banks and other financial institutions should be concerned because college graduates have a higher average and marginal propensity to save, even when their earnings are equal to those of non-college graduates.¹⁰ College graduates are more likely than others to invest savings and to invest their savings in risk ventures.¹¹ They are more likely to use credit cards and other consumer credit in the form of charge accounts and personal loans.¹²

Life and health insurance companies should be concerned because college-educated persons experience less disability and better health.¹³ Providers of health services should be concerned because college graduates visit doctors and dentists more often for preventive purposes.¹⁴ Furthermore, families with more education have lower infant mortality rates.¹⁵ In general, education is the most important correlate of good health.¹⁶

Elementary and secondary schools should be concerned because they are staffed by college graduates. But even

more important, college-educated parents devote more time to their children and their nurturance and well-being than other parents.¹⁷ Thus they are more likely to be involved with their children's education and to support their schools.

All producers of goods and services in the Commonwealth should be concerned because college graduates are more open to new products, more attracted to scientific developments, and more concerned with progress.¹⁸

In fact, all Pennsylvanians should be concerned because college-educated individuals and a better educated population produces valuable, obvious and measurable benefits to all members of the Commonwealth.¹⁹

The Pennsylvania Association of Colleges and Universities (PACU) is concerned about Pennsylvanians' lower-than-average college participation rates. PACU is concerned about Pennsylvanians' participation in all forms of postsecondary education. With a generous grant from the Buhl Foundation of Pittsburgh, and the support of the Pennsylvania Higher Education Assistance Agency (PHEAA), PACU conducted a study of the postsecondary educational plans of students enrolled in Pennsylvania public and private secondary schools during the 1983-84 school year.

Pennsylvanians' College Participation Rates

About 24 percent of all Pennsylvanians age 25 or older have had some experience with college and 14 percent have completed at least four years of college. About 31 percent of the residents of our contiguous states (Maryland, New Jersey, New York, Ohio and West Virginia) have gone to college and 17 percent have gone for four or more years. In the rest of the nation, 33 percent have gone and 16 percent have completed at least four years.²

If Pennsylvania's percentage of the 25 or older population with four or more years of college had equaled the national average, 180,000 additional Keystoneers would have had four or more years of college.

In 1980, 6.1 percent of all Pennsylvanians age 18 or over were enrolled in college. The corresponding percentage for the contiguous states was 7.5 percent; for the rest of the nation, 7.9 percent.³

If Pennsylvania's participation rate had been equal to the national percentage, 140,000 more students would have been attending college. This would represent a 26 percent increase in enrollments.

In 1981, the ratio of first-time, full-time freshmen to 1981 high school graduates was 48 to 100. The ratio for the contiguous states was 62 to 100; for the rest of the nation, 55 to 100.⁴

If Pennsylvania's ratio was equal to the national ratio, our first-time, full-time freshman enrollment would have been 14 percent greater, representing nearly 13,000 students.

The study was called the "Student Postsecondary Plans and Activities Study." The goals of the study were: (1) to identify, isolate and measure the relative influence of community, school, family and student personal factors and characteristics that influence student decisions to attend various forms of postsecondary education or participate in other after-high school activities; and, (2) to use the study findings to develop recommendations for policy and program changes to enhance the probability that more Pennsylvania high school graduates will participate in postsecondary education.

To help guide the Study and provide expert assistance in its conduct and the development of recommended strategies for improving postsecondary education participation rates (again, we are concerned with Pennsylvanians' participation in all forms of education after high school, not just in colleges and universities), a voluntary Advisory Committee was formed. Its members were: Brother Patrick Ellis, F.S.C., President, La Salle College (Chairman); Gerry Woods Cooper, Division Chief, Equal Education Opportunity, Pennsylvania Department of Education; Donald Dickason, Dean of Admissions, Pennsylvania State University; Louis Dimasi, Director, Penn Technical Institute; Naomi Kuziowski, Director of Guidance, Philadelphia High School for Girls; Donald Raley, Director of Financial Aid, Dickinson College; and, Kenneth Scholtz, Principal, Hampton High School.

The Study focussed on the planned participation in postsecondary education of high school seniors, and to a lesser extent, high school freshmen. We are concerned with increased education participation by all citizens, regardless of their age or current educational background. But our Study attention was given to high school seniors because they represent the part of our population that generally is most expected to continue education beyond high school and these students are persons who are most accessible to researchers.

The Study has four parts. The first two parts involve surveys of high school freshmen and seniors in their schools, the third part involves personal interviews with seniors and parents in their homes, and the fourth part involves extensive statistical analyses of data from the senior survey, from the U.S. Bureau of the Census, and the Pennsylvania Department of Education.

The results of the surveys are described in the next chapter. Chapter III describes the results of the interviews and Chapter IV reviews the results of the statistical analyses. Chapter V contains our recommendations for improving postsecondary education participation rates in the Commonwealth.

References

- ¹ Bowen, W.G. and Finegan, T.A. *The Economics of Labor Force Participation*. Princeton: Princeton University Press, 1969.
- Klemp, G.O., Jr. "Three Factors of Success in the World of Work: Implications for Curriculum in Higher Education." Paper presented to the American Association for Higher Education, March 21, 1977.
- Lenning, O.T., et al. *The Many Faces of College Success and Their Nonintellective Correlates: The Published Literature Through The Decade of the Sixties*. Iowa City: American College Testing Program, 1974.
- McEaddy, B.J. "Educational Attainment of Workers, March, 1974." *Monthly Labor Review*, February, 1975, pp. 64-69.
- Machlup, F. *Education and Economic Growth*. Lincoln: University of Nebraska Press, 1970.

- ² U.S. Bureau of the Census, *1980 Census of Population and Housing, Supplementary Reports, Series FHC 80-31-1*.
- ³ *Ibid.*
- ⁴ Admissions Testing Program of the College Board, *College Guide to the ATP Summary Reports*, New York: The College Board, 1983.
- ⁵ Withey, S.B. *A Degree and What Else? Correlates and Consequences of a College Education*. New York: McGraw-Hill, 1971.
- ⁶ Verba, S. and Nie, N. *Participation in America: Political Democracy and Social Equality*. New York: Harper and Row, 1972.
- ⁷ Hyman, H.H., et al. *The Enduring Effects of Education*. Chicago: University of Chicago Press, 1975.
- ⁸ U.S. Department of Health, Education, and Welfare. *The Condition of Education*. Washington, D.C.: U.S. Government Printing Office, 1976.
- ⁹ U.S. Bureau of the Census, *Current Population Reports, Series P-60, No. 139, Lifetime Earnings Estimates for Men and Women in the United States: 1979*. Washington, D.C.: U.S. Government Printing Office, 1983.
- ¹⁰ Solman, L.C., and Taubman, P. *Does College Matter?* New York: Academic Press, 1973.
- ¹¹ Powers, J. *An Inquiry into the Effects of a College Education on the Attitudes, Competencies, and Behavior of Individuals*. Claremont, Calif.: Claremont Graduate School, 1976.
- ¹² Solman, L.C. "The Relation Between Schooling and Savings Behavior: An Example of the Indirect Effects of Education." In F.T. Juster (Ed.), *Education, Income, and Human Behavior*. New York: McGraw-Hill, 1975.
- ¹³ Powers, J., *op cit.*
- ¹⁴ Solman, L.C., *op cit.*
- ¹⁵ Mandell, L. *Credit Card Use in the United States*. Ann Arbor: Institute for Social Research, University of Michigan, 1972.
- ¹⁶ Coburn, M., et al. *Indicators of Educational Outcome, Fall, 1973*. Washington, D.C.: U.S. Government Printing Office, 1973.
- ¹⁷ Metropolitan Life Insurance Company. *Statistical Bulletin*. January, 1976.
- ¹⁸ Coburn, M., et al. *op cit.*
- ¹⁹ Kitagawa, E.M., and Hauser, P.M. *Differential Mortality in the United States: A Study in Socioeconomic Epidemiology*. Cambridge: Harvard University Press, 1973.
- ²⁰ Grossman, M. "The Correlation Between Health and Schooling." In N.E. Terleckys (Ed.), *Household Production and Consumption*. New York: National Bureau of Economic Research and Columbia University Press, 1975.
- ²¹ Hill, C.R., and Stafford, F.P. "Allocation of Time to Preschool Children and Educational Opportunity." *Journal of Human Resources*, Summer, 1974, pp. 323-341.
- ²² Morgan, J.N. (Ed.) *Five Thousand American Families: Patterns of Economic Progress*. Ann Arbor: Survey Research Center, Institute of Social Research, University of Michigan, 1974.
- ²³ Morgan, J.N., et al. *Productive Americans: A Study of How Individuals Contribute to Economic Progress*. Ann Arbor: Institute for Social Research, University of Michigan, 1966.
- ²⁴ For an excellent review and analysis of the literature on the personal and societal benefits of higher education, readers are invited to examine Howard R. Bowen, *Investment in Learning: The Individual and Social Value of American Higher Education*. San Francisco: Jossey-Bass, Inc., 1977.



II. WHAT THE STUDENT SURVEYS REVEALED

A key part of the Study involved asking students to complete questionnaires which included items on their personal, academic, and family characteristics, their plans for after high school, and their reasons for those plans. We asked seniors and freshmen similar questions to see if student and family characteristics and other factors influence student plans in similar ways at the ninth grade and twelfth grade levels.

The senior survey was the College Board's Survey of Postsecondary Education and Careers (SPEC), a special questionnaire designed to collect the kinds of data mentioned above. The SPEC questionnaire was chosen because it has a 12-year history of use in similar studies. It has been used in statewide studies in five states including Pennsylvania (in 1975). The freshmen survey was especially constructed for this Study and is quite similar to the SPEC survey. (Copies of both surveys are displayed in Appendix A of this report. Detailed results of the surveys are reported in Technical Reports Number One and Number Two and are available upon request from PACU.)

The responses of 7,847 seniors in 51 high schools and 8,436 freshmen in 49 high schools in 13 Study counties are summarized below. The names and addresses of the schools are displayed in Appendix B. The schools were volunteers from a sample of schools carefully selected to represent the schools of their counties. We included schools in predominantly rural and predominantly urban counties to see if differences in education participation rates were somehow related to the locations of their high schools. The students answered the surveys in their classrooms in group sessions administered by teachers or counselors during October through early December, 1983.

The most important finding of the two surveys is that responses of freshmen and seniors were very similar, indicating that the things that influence postsecondary plans of seniors are present and influential in the freshman year.

Student and Family Characteristics

The significant characteristics of seniors and freshmen include the following. Fifty-two percent of the students are female. About 83 percent are White, 11 percent are Black, and the remaining six percent are members of other racial/ethnic minority groups. The average number of children in their families is about three but the ninth graders reported slightly smaller numbers of siblings, a reflection of a national trend toward smaller families.

Over 60 percent of the students come from families where both parents are employed at least on a part-time basis and 38 percent have both parents employed full-time. Only six percent said neither parent was employed at the time of the survey.

Slightly over one-fourth of the students said their household heads are employed as professionals, managers or administrators and slightly less than one-fourth said theirs are employed in laborer or operative occupations. About 14 percent of their household heads are skilled workers or craftspersons and 11 percent work in clerical or sales occupations.

The students estimated their average parental income at about \$24,500. One fourth reported parental incomes below \$16,000 and one-fifth reported incomes of \$38,000 or more.

The Students' High School Programs

Slightly over half the students are enrolled in academic or college preparatory programs. More seniors than freshmen, 31 percent as compared to 24 percent, are enrolled in vocationally-oriented programs (such as agriculture, business, trade and industrial, or distributive education). But more freshmen than seniors, 25 percent as compared to 17 percent, are enrolled in "general" programs. Apparently as students move through high school, they shift enrollments from the general to the vocationally-oriented programs. Enrollments in academic programs stay stable.

Pennsylvania seniors are somewhat more likely than seniors in other states, 52 percent as compared to 39 percent, to be enrolled in academic programs.¹ This is important because, as we shall see below, students in academic programs are much more likely to plan to attend postsecondary education.

Enrollment in the different high school programs is closely related to the students' family incomes and their household heads' occupations. For example, the average parental incomes of students in academic programs are 25 percent higher than the incomes of other students. Over 36 percent of the academic students, but only 17 percent of the other students come from families whose household heads are employed as professionals, managers, or administrators. On the other hand, just 18 percent of the academic students, but 33 percent of the others come from families headed by laborers or operatives.

Looking at these data from another viewpoint, we found that over 70 percent of the children of professionals, managers, and administrators but just 40 percent of the children of laborers and operatives are enrolled in academic programs. Similar, but not quite as striking relationships between high school program choices and socioeconomic status appeared among children from families headed by persons in middle-status occupations.

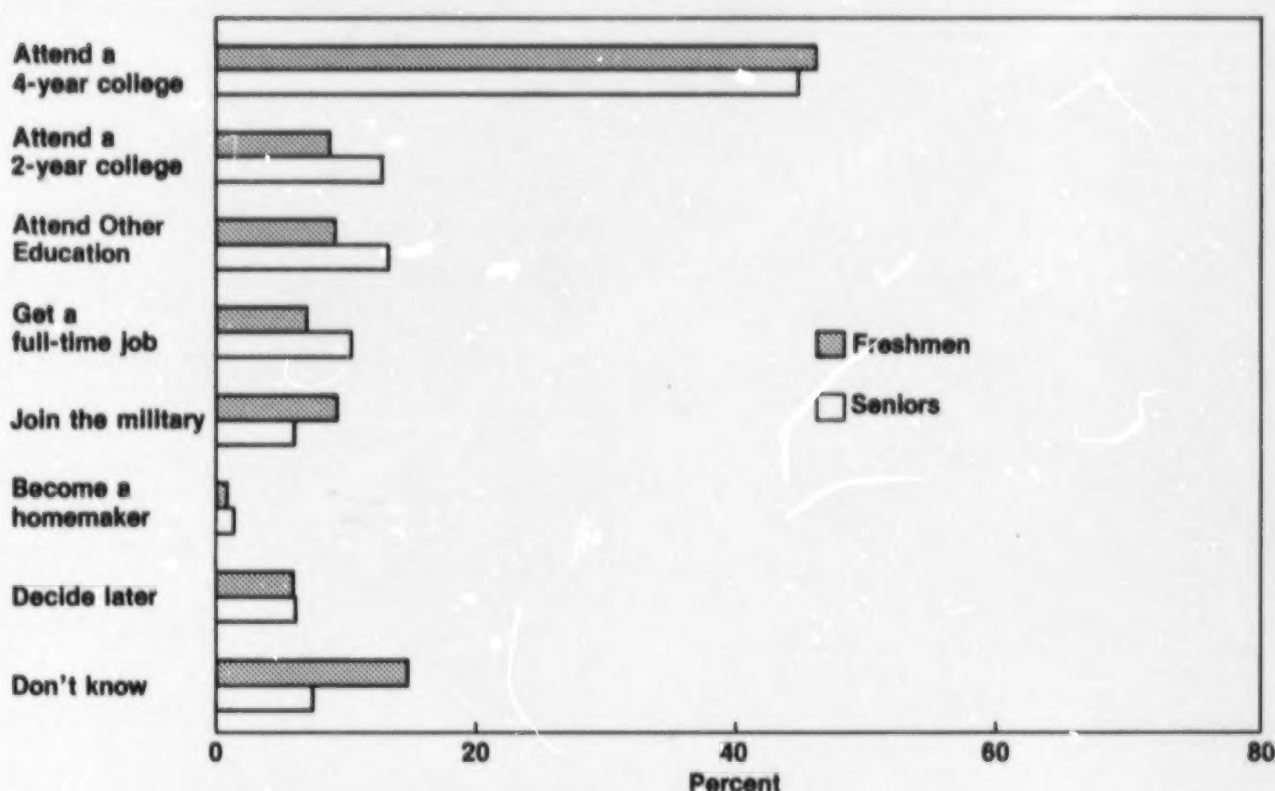
In general, the higher a student's socioeconomic status, the more likely he or she will be enrolled in an academic program. This relationship is true for both freshmen and seniors.

Academic freshmen and seniors consistently report higher grades in basic subject areas, higher class ranks, and higher levels of ability in such things as academic motivation, creative writing, mathematical ability, scientific ability, and two social skills, working with others and leadership. Vocational program students give themselves higher self-ratings on clerical and mechanical ability.

Students' Plans For After High School

Over seven out of ten seniors (70.3 percent) and six out of every ten freshmen (64.2 percent) said they planned to go to some type of postsecondary institution after leaving high school. About equal percentages of both groups, 16

Students Postsecondary Plans, By School Grade Levels



to 17 percent, said they planned to get full-time jobs, join the military or become homemakers. Freshmen were more likely than seniors to plan to join the military rather than get civilian jobs, and vice versa. Freshmen, as we expected, were less likely to have any firm plans for after high school, 20 percent saying they did not know what they would do or planned to decide after they left school. Only 13 percent of the seniors gave these answers.

Apparently as students progress through high school and they reach decisions about post-high school plans, their plans are more likely to involve education than employment or other non-educational activities.

We know that not all students will achieve their stated plans, and some will change their plans between the time of the survey and when they leave high school. Nevertheless, there is a very close correspondence between seniors' planned and actual activities. For example, a 1979 statewide survey of Vermont high school graduates showed that 89 percent of those who had planned as seniors to enroll in postsecondary education soon after high school actually did so.³ Two earlier similar studies in large high school districts in California showed similar results. A year after graduation about 92 percent of one districts' seniors and 82 percent of the other's seniors who planned on education had enrolled at least part-time. Over 80 percent of the seniors in each district who had planned to work found jobs or were seeking them. But only 40 percent of the students from each district who

had planned to become homemakers or join the military services had done so.^{3, 4}

Therefore, the Pennsylvania seniors' planned activities are the ones they are quite likely to be following soon after high school. It is noteworthy, however, that students whose after-high school activities are least likely to correspond to their senior plans in these earlier studies were females, non-White students, or students from lower-income families who, for one reason or another, were unable to continue their education immediately or soon after graduation.

Major Differences Between Education-Bound and Non-Education-Bound Students

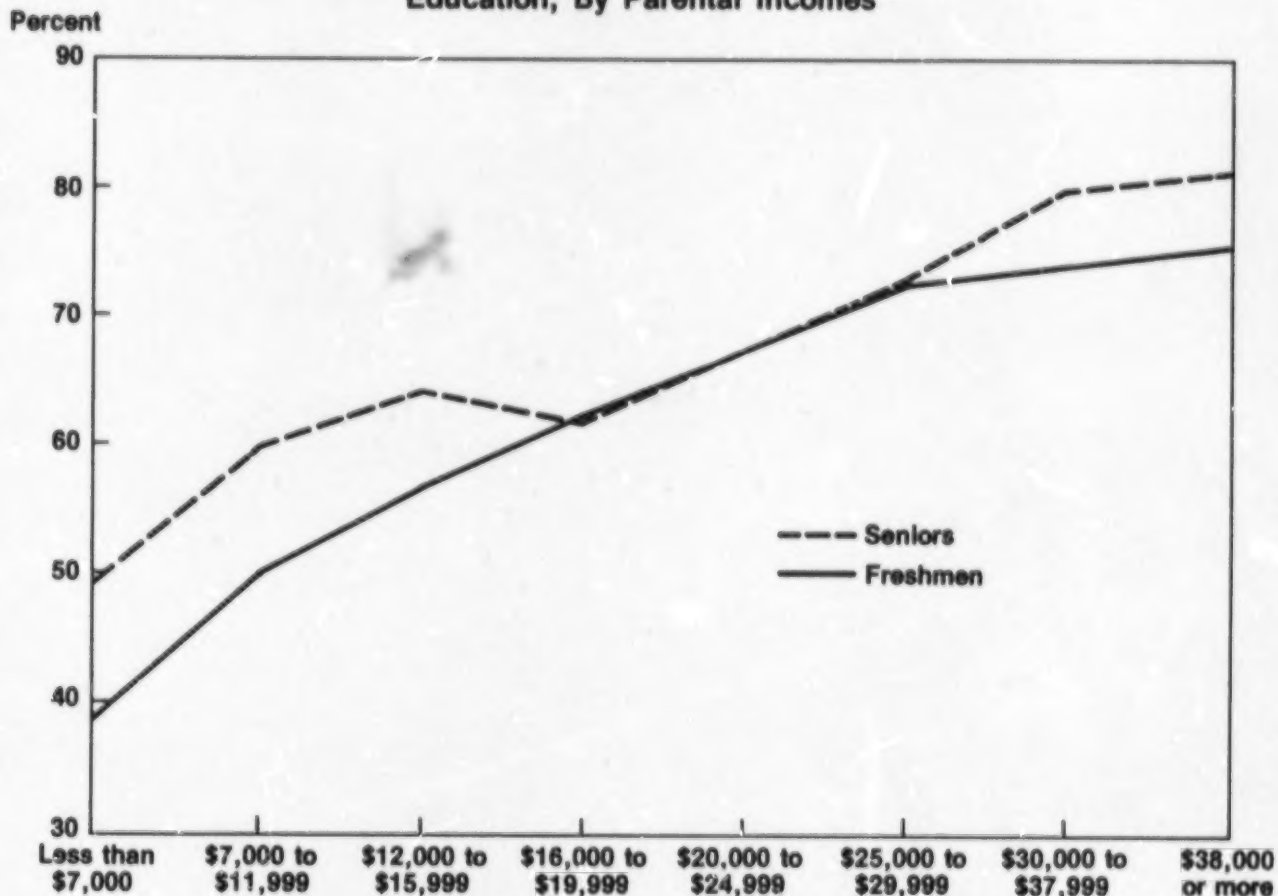
There are several characteristics which consistently distinguish freshmen and seniors who plan on postsecondary education from those who plan to do something else. Females are more likely than males, 70 percent as compared to 60 percent, to plan on education. Black students (about 75 percent) are more likely than White students (about 65 percent) or students from other racial/ethnic groups (about 60 percent) to plan on education. This latter finding reflects Black students' historical perceptions of college as a primary means of achieving upward socioeconomic mobility and some degree of freedom from the effects of racial discrimination.

Education-bound students consistently report higher class ranks than other students, higher average grades in all subject areas, and higher self-ratings on abilities, especially on academic motivation, creative writing, and scientific ability.

As expected, education-bound students have higher family incomes than other students. Their average parental incomes are about 23 percent higher. Less than half the freshmen and slightly over half the seniors from families with incomes below \$12,000 plan on postsecondary

dary education. But over two-thirds of both groups whose families had incomes between \$20,000 and \$24,999 and almost three-fourths whose families had higher family incomes plan to continue their education.

Percentages of Freshmen and Seniors Who Plan On Postsecondary Education, By Parental Incomes



It is significant that more low-income seniors than low-income freshmen plan on postsecondary education. The surveys showed that as lower-income students neared completion of their high school programs, they gained increasing access to information about postsecondary opportunities and financial aid. This information may have contributed to the increase in plans for postsecondary education.

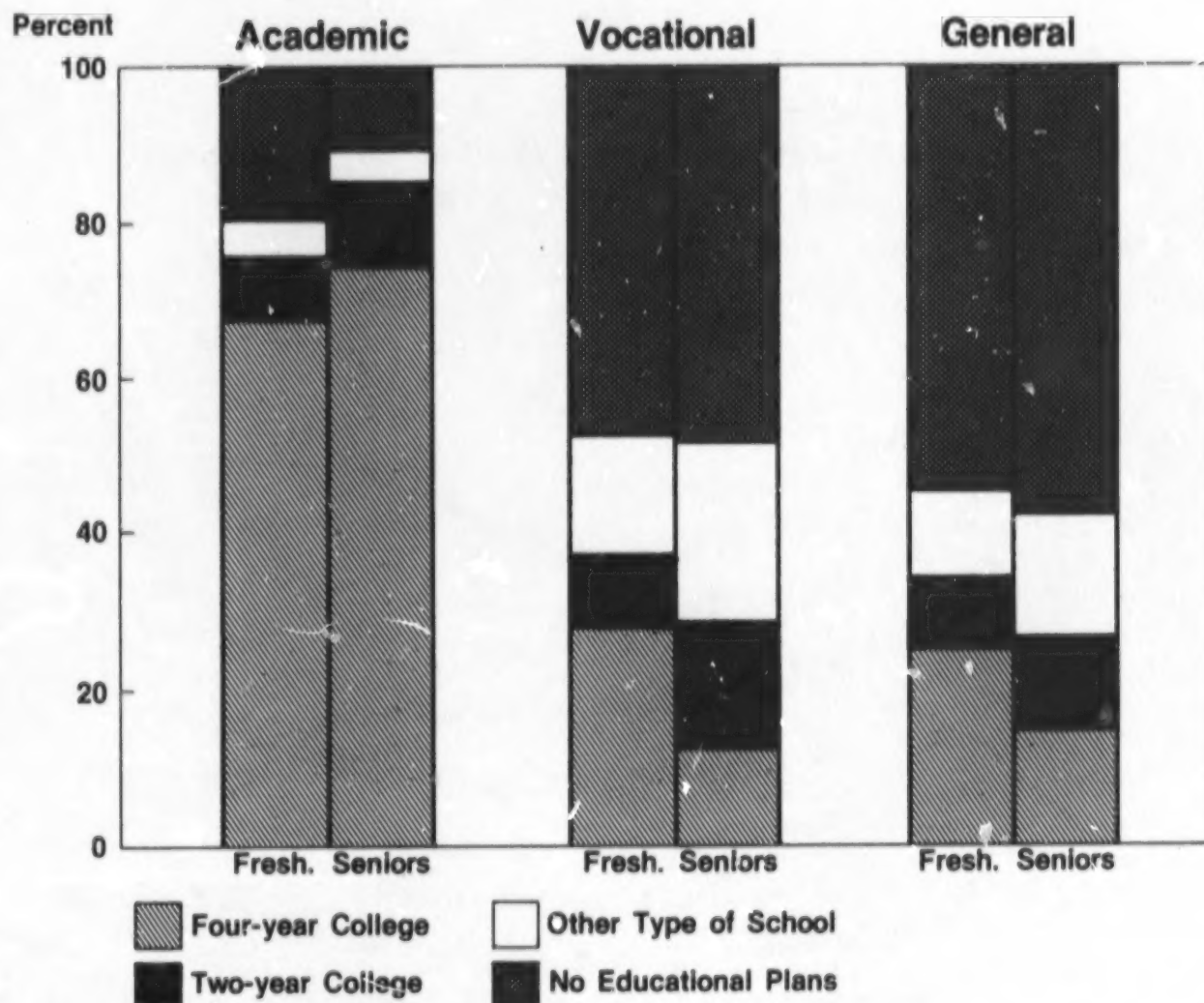
We found that students in academic or college preparatory programs are much more likely than others to plan to continue their education. For example, almost 90 percent of the academic seniors, but only 50 percent of

the seniors taking vocational programs and just 42 percent of the seniors in general programs are education-bound.

Among education-bound seniors, over 83 percent of those in academic programs, but only 34 percent in general programs and just 23 percent in vocational programs plan to go to four-year colleges.

Therefore, the students' high school programs are directly related to the probability that they plan to continue their education and to the types of institutions they plan to attend.

Students Postsecondary Educational Plans, By Types of Programs



The surveys found a dramatic relationship between the students' socioeconomic statuses and their postsecondary plans. This relationship first appeared at the ninth grade level when children from higher status families are much more likely to have been enrolled in academic programs. The relationship appears rather constant as academic seniors are much more likely to plan on postsecondary education. Education-bound seniors are much more likely to come from families with higher socioeconomic statuses, as evidenced by their higher family incomes and their household heads' occupations.

For example, one-third of the education-bound seniors, but only half as many (16 percent) of the other seniors come from households headed by persons in professional, managerial, or administrative occupations. Over 43 percent of the non-education-bound, but just 29 percent of the education-bound, seniors come from households headed by persons in service, laborer, or operative jobs.

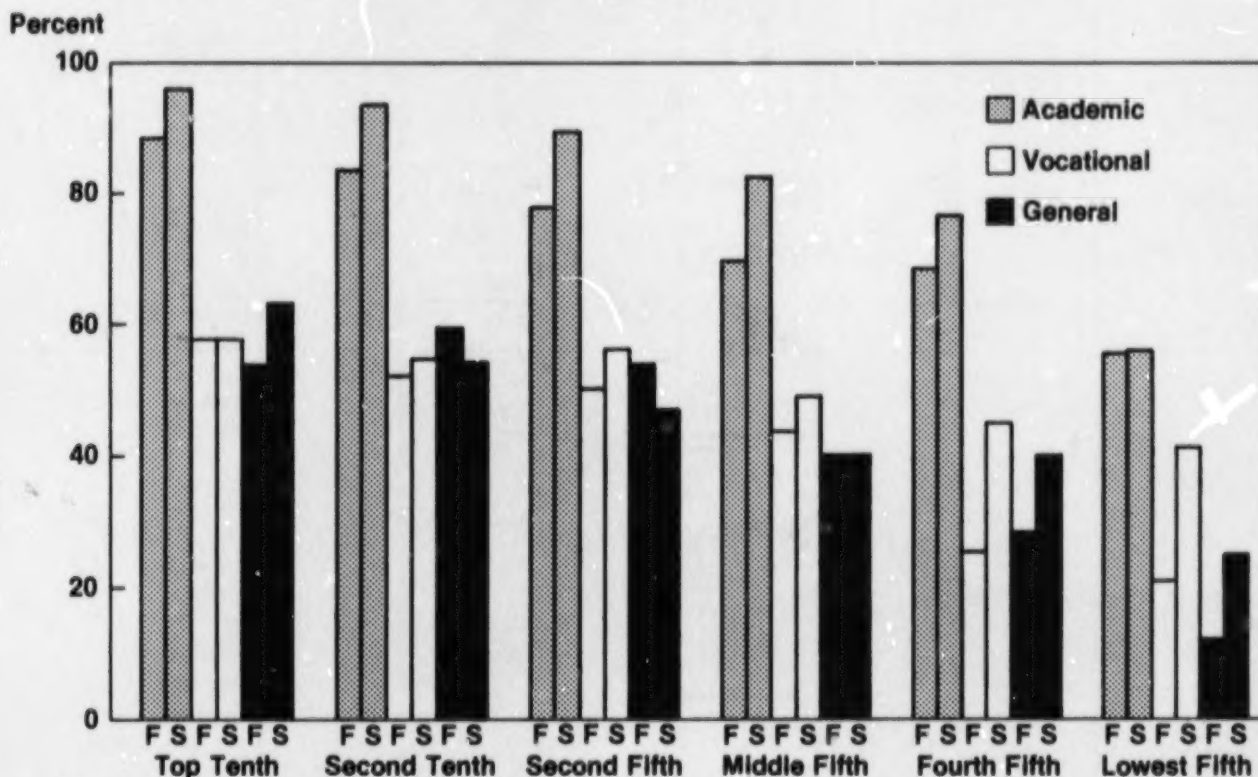
Higher achievement in school has a modifying impact on the influence of socioeconomic status in that higher class ranks have an apparently stronger influence than family incomes on plans for postsecondary education. For example, no less than 68 percent of the "higher ranking" (top 40 percent of their classes) seniors, *regardless of their family incomes*, said they would continue their education. However, no more than 65 percent of the "lower-ranking" but "higher-income" (above \$25,000) seniors plan on continuing their education.

We discovered, however, that the influence of achievement is moderated by the types of high school programs the seniors follow. For example, no less than 55 percent of the academic freshmen and seniors who rank in the *bottom fifth* of their classes plan on education. On the other hand, no more than 58 percent of the vocational students who rank in the *top two-fifths* of their classes plan on education.

Thus it appears that the types of high school programs the students take are more important to their plans for postsecondary education than are their per-

formances in those programs. And, as noted above, the types of programs students take are closely related to their family socioeconomic statuses.

Percentages of Students Who Plan On Postsecondary Education, By Class Ranks and Programs



Students' Career Plans and Their Postsecondary Activities

The kinds of careers students want, whether they had made career decisions at the time of the surveys, and when they first began thinking about careers are all related to plans for postsecondary education.

About 73 percent of the seniors who plan to attend four-year colleges said they plan to enter *professional* occupations, such as doctor, lawyer, teacher, engineer, scientist, accountant, etc. However, only 44 percent of the seniors who plan on attending two-year colleges, 20 percent of those who plan on other postsecondary education, and just 18 percent of the seniors with no immediate education plans said they plan on professional occupations.

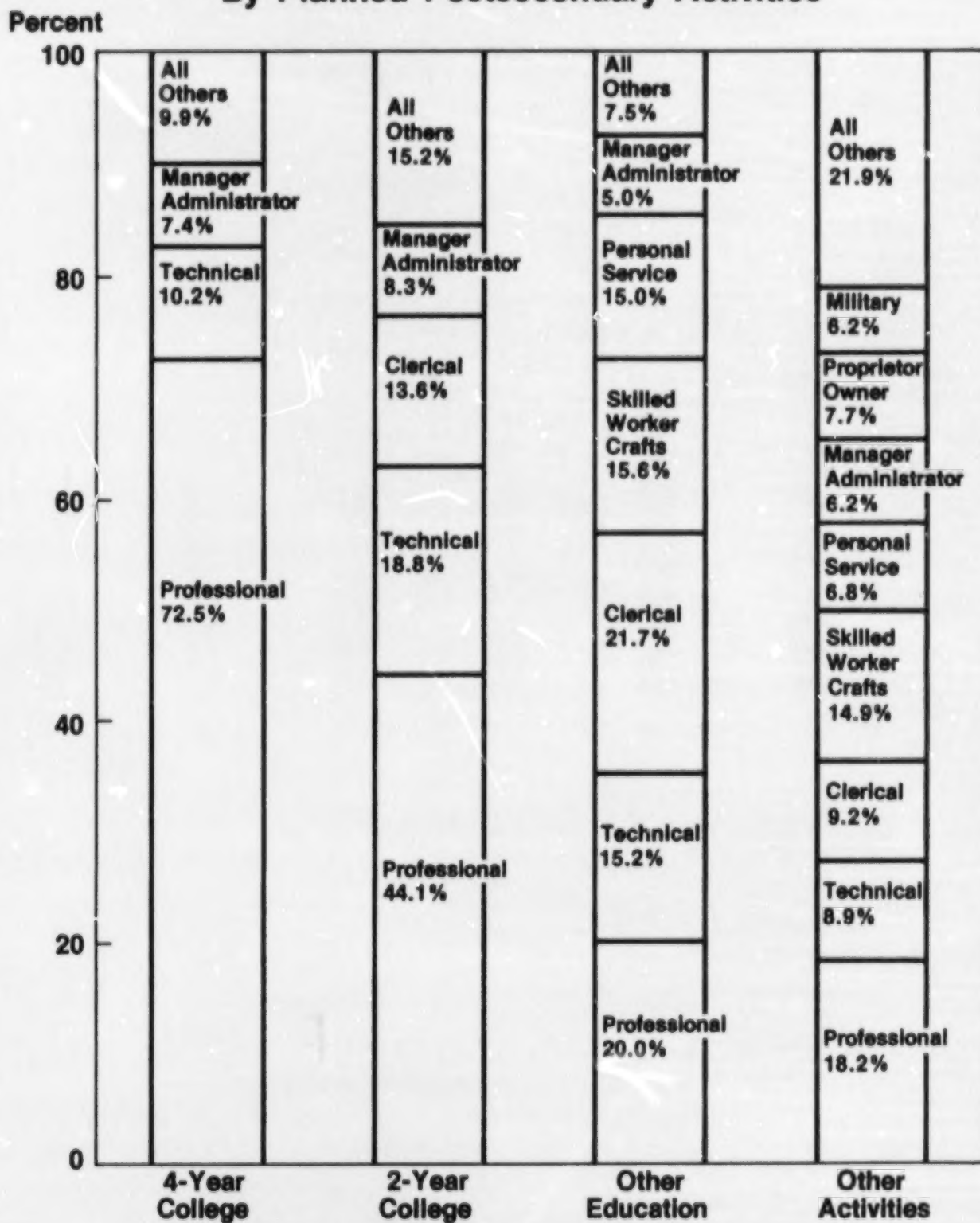
On the other hand, 15 percent of the non-education-bound seniors and the seniors who plan to attend vocational or business and trade schools plan on careers as skilled workers or craftspersons while less than four percent of the college-bound seniors think they will enter these occupations.

One out of six non-education-bound seniors plan to be professionals in ten years, even though a postsecondary education is required for most professional occupations. Many of these students expressed plans to continue their education in a year or so after leaving high school. A few students apparently were unaware that education beyond high school is necessary to enter a profession.

Education-bound students are more likely than others to have considered careers and to have considered them at earlier times in high school or junior high. Education-bound students are also more likely to have made career decisions and to have decided earlier than other students.

For example, 72 percent of the education-bound seniors but only 57 percent of their other classmates had considered careers during or before the tenth grade. Four times as many freshmen who are *not* planning on post-high school education as those who are, 15.0 percent as compared to 3.6 percent, said they had not considered careers by the time of the survey.

Seniors Planned Occupations In Ten Years, By Planned Postsecondary Activities



Over 60 percent of the education-bound seniors but only half as many remaining seniors had chosen a career before the end of their junior years. And 20 percent of the seniors who aren't planning on more education, but only 12 percent of those who are, hadn't made a career choice by the time of the survey.

Guidance Information and Postsecondary Plans

Information that students receive from their high schools seems to influence their postsecondary plans. The surveys revealed evidence of positive relationships between the amounts and quality of guidance information students receive and their plans for more education. The surveys also showed that additional information is very much needed.

Seniors are much more likely than freshmen to have received useful information in three areas that influence postsecondary plans: career information, information on postsecondary educational opportunities, and information on financial aid. Over eight out of ten seniors but only six out of ten freshmen said they had received any career information from their schools. About 90 percent of the students who got career information said it was helpful, but far fewer freshmen and certainly not enough seniors received information or assistance of any kind.

The patterns of receipt of information about educational opportunities closely resemble those for career in-

formation in that seniors are much more likely to receive information but both groups are about equally likely to consider what they received useful.

Financial aid and information about aid are critical to access to postsecondary education for most Pennsylvania students (nearly 60 percent of all full-time undergraduates receive some type of aid). However, the students said useful financial aid information was much less available than information about careers or educational opportunities. Only seven out of every ten seniors and just one out of every four freshmen said they had received financial aid information. And only about 80 percent of the students who got information considered it useful.

Education-bound students, at both the freshmen and senior grade levels, were more likely to have received useful information about careers and educational opportunities. Education-bound seniors were much more likely than other seniors, 65 percent as compared to 45 percent, to have received useful financial aid information. But education-bound and other freshmen were about equally likely (or unlikely, depending on your point of view) to report getting useful financial aid information, 29 percent and 32 percent, respectively.

We do not know whether education-bound students are more likely than other students to receive information because they are education-bound and actively seek it or

TABLE 1
Student Evaluations of Types of Information Received
From Their High Schools, by Postsecondary Plans

Career Information						
	Education-Bound		Non-Education-Bound		All Students	
	Freshmen	Seniors	Freshmen	Seniors	Freshmen	Seniors
Useful	26.4%	36.9%	23.6%	33.8%	25.4%	36.0%
Partially Useful	24.7	41.3	25.5	35.1	25.0	39.1
Not Useful	6.3	7.4	9.8	11.0	7.6	8.6
Haven't Received Any	42.6	14.4	41.1	20.1	42.0	16.3
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Postsecondary Educational Opportunities Information						
	Education-Bound		Non-Education-Bound		All Students	
	Freshmen	Seniors	Freshmen	Seniors	Freshmen	Seniors
Useful	27.1%	43.1%	17.7%	25.6%	23.7%	37.1%
Partially Useful	25.3	40.2	29.9	37.3	26.6	39.2
Not Useful	5.4	6.9	13.3	17.8	8.2	10.6
Haven't Received Any	42.2	9.8	40.0	19.3	41.5	13.1
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Financial Aid Information						
	Education-Bound		Non-Education-Bound		All Students	
	Freshmen	Seniors	Freshmen	Seniors	Freshmen	Seniors
Useful	12.1%	29.8%	11.9%	16.6%	12.0%	25.2%
Partially Useful	17.1	35.0	20.0	28.3	18.2	32.8
Not Useful	7.4	10.0	15.4	22.3	10.2	14.2
Haven't Received Any	63.4	25.2	52.7	32.8	59.6	27.8
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

whether they are education-bound because they receive helpful information. But regardless of the direction of the cause-effect relationship, it is clear that students who are not planning to continue their education are less likely than others to receive useful information. Furthermore, it is clear that significant numbers of freshmen and seniors don't have access to guidance information they consider useful.

Students' Reasons For Their Postsecondary Plans

Students have many and quite often unique reasons for planning on various postsecondary activities. However, we found some significant and consistent patterns of reasons for planning certain activities.

Education-bound students are most likely to say that needing more education to obtain a satisfying job, wanting to continue their education for self-improvement no matter what career they might choose, and wanting to continue their education to make a career choice are important reasons to plan on education beyond high school.

Students who are not planning on education immediately after high school are more likely to consider wanting to make money soon after high school, wanting to begin their careers as soon as possible, and getting jobs

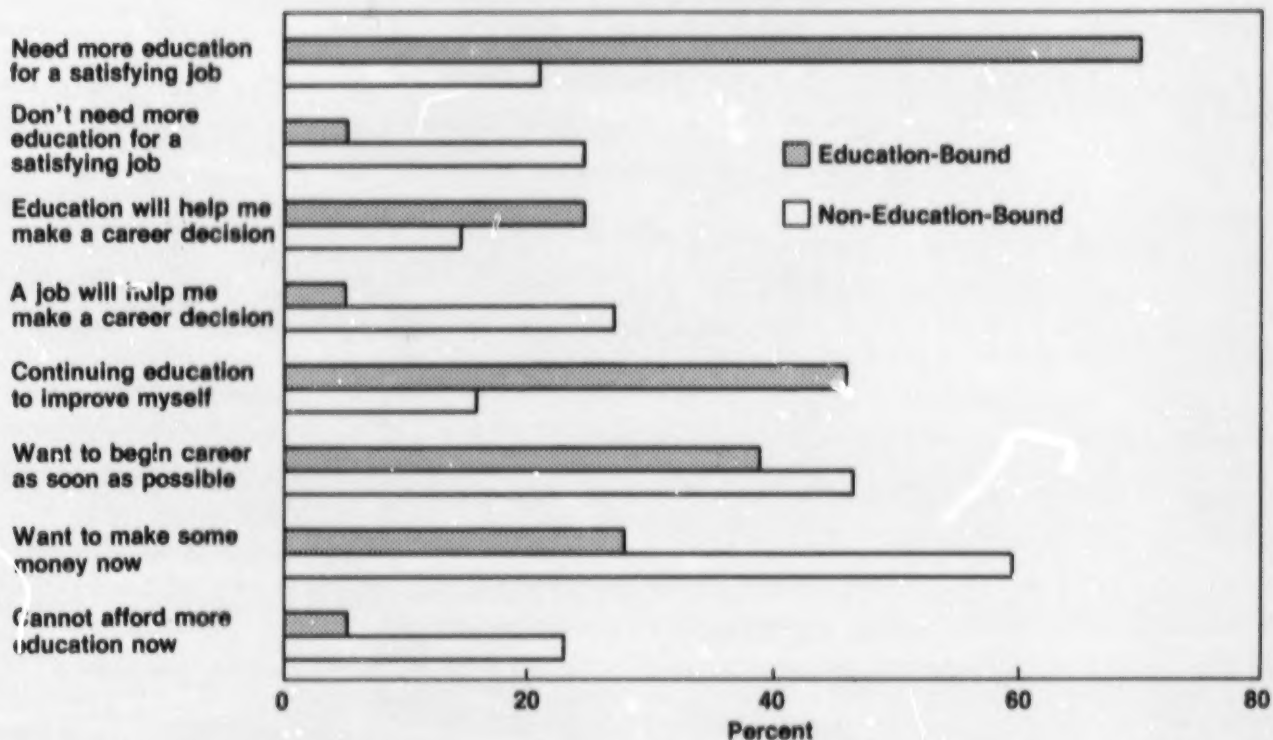
to help reach career decisions as important reasons for their decisions. These students are also much *less* likely than their education-bound classmates to believe that they need more education to obtain jobs that will satisfy them.

It is noteworthy that seniors who plan to attend less-than-four-year institutions rather than traditional four-year colleges are more likely to emphasize the importance of making money soon after high school and starting careers as soon as possible.

We believe it is very significant that students' reasons for their planned postsecondary activities remain consistent between their freshmen and senior years. This indicates that reasons for plans, as well as the plans themselves, are shaped at a very early phase in the students' high school years and they remain stable thereafter.

We asked the seniors to identify their *single most important* reason for not continuing their education. Almost 17 percent said that having a good opportunity for employment after school was their biggest reason for not continuing. Another 13 percent said they planned to join the military services. Twelve percent said they couldn't afford to continue their education at this time

Percentages of Education-Bound and Non-Education-Bound Seniors Who Said Reasons For Their Postsecondary Plans "Fit My Situation Very Well"



and 11 percent said they don't need more education for a satisfying career.

About 22 percent said they needed a break from school, their grades were too low to attend a school they liked, they had not yet made career decisions, or that they wanted to travel. The remaining 25 percent said some reason not listed on the survey was of primary importance to their decisions.

Although almost a third of the seniors did not plan to continue their education immediately after high school, half of these "non-education-bound" students expressed some plans for future education and/or training. This finding helps to explain why some of the non-education-bound seniors said that more education was needed to obtain satisfying jobs, to help them make career decisions, and to improve themselves, in spite of their not planning to become full-time students right away.

About 17 percent of the non-education-bound seniors said they would continue their education in a military training program. Another ten percent said they plan to go to school sometime on a part-time basis and another six percent said they might go to college in a year or more. About 12 percent said they would participate in on-the-job or apprenticeship training programs. About 24 percent of the non-education-bound seniors are undecided about future plans for education and the remaining 31 percent said they have no plans for further education or training of any kind.

Differences in Rural and Urban High School Students

We knew that education participation rates are considerably different for rural and urban high school students, the latter being more likely to attend some form of postsecondary education. The seniors in urban schools are more likely to plan to attend postsecondary education, 76 percent as compared to 53 percent. Urban freshmen are also more likely to plan on postsecondary education, 68 percent as compared to 55 percent.

However, the mere locations of the students' schools are not the determining factor in their postsecondary plans. Attending a rural or urban school did not affect the students' postsecondary plans. It is the differences in personal, academic, and family characteristics between students in rural and urban areas that account for the differences in their plans.

For example, rural students are more likely to be males and males are somewhat less likely to plan on postsecondary education than are females. Urban students are more likely to be enrolled in academic programs and students in academic programs are more likely to go on to college. Students from families with higher incomes are more likely to plan on postsecondary education and urban students' average incomes are 18 percent higher than those of rural students. Between one-fifth and one-fourth of the urban students, but almost a third of the rural

TABLE 2

Students' Postsecondary Plans, By Parental Attitudes Toward The Students' Activities

Students' Plans	Parental Preferences					
	Go To College		Attend Other Schools		Get A Job	
	Freshmen	Seniors	Freshmen	Seniors	Freshmen	Seniors
Go to college	83.7%	88.2%	5.3%	4.4%	7.7%	7.7%
Attend other education	2.5	2.8	72.1	71.5	1.8	4.5
Get a job right away	1.1	1.4	5.1	9.0	62.5	71.5
Become a homemaker	0.3	0.1	1.7	1.0	1.1	0.9
Join the military	3.3	1.6	5.1	2.5	12.5	4.8
Undecided or don't know	9.1	5.9	10.7	11.6	14.4	11.5
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Students' Plans	Join the Military		No Strong Feelings		Do As I Want To	
	Freshmen	Seniors	Freshmen	Seniors	Freshmen	Seniors
Go to college	6.7%	6.7%	22.5%	25.5%	39.8%	38.7%
Attend other education	2.8	6.3	9.1	7.5	10.5	15.2
Get a job right away	6.7	8.9	9.6	18.6	8.5	15.1
Become a homemaker	0.3	0.0	0.9	3.7	0.6	2.1
Join the military	71.6	61.1	9.4	13.3	9.6	8.3
Undecided or don't know	11.9	17.9	48.5	31.4	31.0	20.6
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

students come from families with annual incomes below \$16,000. Students whose household heads are employed in professional, managerial, or administrative occupations are more likely to plan on postsecondary education and more urban students than rural students, 37 percent as compared to 25 percent, come from such families. Therefore, it is not surprising that rural students are less likely than urban students to plan on postsecondary education.

When we asked the rural and urban seniors who were not planning on post-high school education why they had no such plans, their reasons for not continuing were very similar. Put another way, rural and urban students do not plan to continue their education for the same basic reasons.

Thus we conclude that differences in rural and urban students' education participation rates are quantitative not qualitative. The plans of rural students are equally affected by all the factors that influence those of urban students, the rural students' personal, academic, and family characteristics are just more often those which are associated with lower participation rates in general. These findings have an extremely important implication for development of strategies which attempt to enhance education participation rates in that qualitatively different strategies are apparently not required for rural and urban students.

Parental Preferences and Student Postsecondary Plans

About 50 percent of the freshmen and 55 percent of the seniors said their parents wanted them to attend a college or some other postsecondary educational institution. About seven percent of the freshmen and eight percent of the seniors said their parents wanted them to get full-time jobs or join the military services. But 43 percent of the freshmen and 37 percent of the seniors said their parents have no strong feelings about what they do after school or are willing to let them do what they want to do.

These parental preferences (or lack of them) have a striking relationship to the students' plans (and their lack of plans). And these relationships appear equally strong among freshmen and seniors.

For example, 81 percent of the freshmen and 84 percent of the seniors who said their parents had some definite preference for their post-high school activities plan to follow those preferences. Just nine percent of the students said they plan to do something their parents did not prefer and the remaining students were undecided about their plans.

Parental preferences have a tremendous impact on student plans for more education. About 83 percent of the freshmen and over 86 percent of the seniors who said their parents wanted them to continue their education planned to do so. But only about half the students whose parents had indifferent or permissive attitudes about their postsecondary activities plan on more education. And just ten percent of the freshmen and 12 percent of the seniors whose parents want them to get jobs or join the military were planning on more education. **Quite clearly parental preferences affect students plans for education in both positive and negative ways.**

The absence of definite parental preferences has a great effect on student plans. About 20 percent of the freshmen and 13 percent of the seniors said they didn't know what they would do after high school. Over 71 percent of these "undecided" freshmen and 63 percent of these "undecided" seniors have parents with no definite preferences for their postsecondary activities. Only one-third as many students from families with definite parental preferences were undecided about their postsecondary plans.

Given the strong relationship between parental preferences and student plans, an increase in proportions of parents who prefer more education for their children would increase the proportions of students planning on more education and, we assume, the proportions achieving those plans.

In addition to the statistical evidence for this relationship found in these two surveys, we found some modest historical evidence for the influence of parental preferences in student plans. The 1975 SPEC survey of Pennsylvania high school seniors showed that fewer parents of female seniors then than now, 45.0 percent as compared to 48.5 percent, wanted their daughters to continue their education.⁸ And fewer female seniors then than now, 64.8 percent as compared to 74.4 percent, were planning to continue. On the other hand, approximately the same proportion of males in the earlier study and now, 55.2 percent and 55.5 percent, said their parents wanted them to continue their education and approximately the same proportions of 1975 and 1983 male seniors, 64.3 percent and 63.9 percent, were college bound.

We do not believe that the increase in proportions of female seniors planning to continue their education can entirely be attributed to increasing parental preferences for education. The data suggest the increased parental support could have been influential.

Summary

The most important findings of the two surveys are:

- (1) that the similar responses of freshmen and seniors indicate that the factors which influence students' postsecondary plans are the same at both grade levels, which suggests that strategies to enhance postsecondary education participation rates must be targeted at the earliest high school grade levels and continue throughout the students' high school years;
- (2) that students' high school programs have more influence on their plans than their levels of performance in those programs;
- (3) that the types of high school programs students choose are closely related to their family socioeconomic statuses, with students from lower-status families less likely to enroll in academic programs which, more often than not, lead to postsecondary education;
- (4) that seniors are much more likely than freshmen, and education-bound students more likely than others, to receive useful information on careers, postsecondary educational opportunities, and

financial aid, but all students need more useful information;

- (5) that plans for postsecondary education are greatly influenced by students' career plans and decisions and that their career decisions generally take place before the senior year, which again suggests the need for more counseling and guidance in the earlier years of high school;
- (6) that differences in rural and urban high school students' education participation rates are not a function of their high schools' locations but are related to differences in their family socioeconomic statuses, which suggests that different strategies to enhance education participation rates among rural and urban seniors are unnecessary; and,
- (7) that parental preferences or attitudes about students' activities are the most influential of all factors that affect their postsecondary plans.

References

- ¹ Peng, S.S. *High School and Beyond, A National Longitudinal Study for the 1980s, A Capsule Description of High School Students*. Washington: National Center for Educational Statistics, 1981.
- ² Vermont Student Assistance Corporation, *Survey of Plans for Education and Careers: Actual Activities After High School, Class of 1978*. Burlington, VT: VSAC, 1979.
- ³ College Entrance Examination Board, *What Have You Done? A Survey of Student Postsecondary Activities of Graduates of the Fullerton Union High School District, Fullerton, California*. New York: The College Board, 1978 (mimeo).
- ⁴ College Entrance Examination Board, *In The Year After Graduation From High School: A Survey of Student Postsecondary Activities of Graduates of the Grant Joint Union High School, Class of 1978*. Burlington, VT: VSAC, 1979.
- ⁵ Pennsylvania Higher Education Assistance Agency, *A Survey of Plans for Postsecondary Education and Careers of Pennsylvania High School Seniors, Fall, 1975*. Harrisburg, Pa.: PHEAA, 1976.



III. WHAT SENIORS AND PARENTS SAY ABOUT STUDENT POSTSECONDARY PLANS

We knew from earlier research in Pennsylvania and elsewhere that high school students' postsecondary plans are greatly influenced by the characteristics and attitudes of their parents and other family members.¹ We anticipated this influence in our surveys. But we did not know much about how the influence is manifested in various families nor was much known about the interaction between students and parents as plans for after high school are made.

We believed that personal interviews of students and their parents would help us learn more about the influence of parents in the planning process than could be learned through the surveys. Therefore, we included plans to interview 50 sets of students and parents in their homes as part of our Study design.

We considered this part of our Study experimental and made no attempt to select interviewees who would be statistically representative of all Pennsylvania seniors or of any sub-group of seniors. (A sample size of 50 from a population in excess of 100,000 cannot be considered statistically representative.) We cannot assume that our students' and parents' interview responses are representative of responses we might have gotten had we interviewed all or even a much larger number of families. However, the interview responses frequently correspond to general survey patterns. Therefore, the results of the interviews are probably illustrative of significant patterns among many Pennsylvania seniors and their families.

The seniors were selected from among 816 students in 22 schools who volunteered to consider being interviewed when they answered the senior survey. To minimize interview staff travel time and costs, only students in high schools in Harrisburg, Philadelphia, Pittsburgh and rural Wayne County were given the opportunity to be interviewed.

Several things were learned from the interviews and, in general, what we learned tended to support the survey findings. The most interesting and significant findings include the following.

Most of the parents of seniors who plan to attend four-year colleges were involved in their children's planning processes, wanted to be involved, and welcomed more materials and school-sponsored activities to help them advise their children.

With rare exception these parents said they considered their child's education worth the money they would have to spend on it. Occasionally these parents would qualify their responses by hoping their children would be able to use what they learned.

Parents of students planning to attend less-than-four-year schools, such as community colleges, business, trade, or technical schools, said that education would be expensive but worth its costs. These parents were, however, somewhat more likely than others to emphasize the costs. Nevertheless, they were generally supportive of their children's plans and talked positively of education — if it meant a better job and increased employment and financial security.

The interviews, as did the surveys, revealed a close relationship between the students' career and educational plans. However, we were unable to identify any consistent relationships between the processes by which students choose careers and their educational choices. How and when students make career decisions appears quite idiosyncratic. It is only the outcome of the career planning process, the decision itself, which is closely related to educational plans. Further research on the factors which influence the processes of decision-making is needed before we can discover precisely how counselors and others might intervene to modify these processes and make them more effective.



Students who planned to join the military service, to get jobs after high school, or who had not yet decided what they would do were more likely than other interviewees to have parents who expressed rather permissive attitudes about the students' decisions, choices, and plans. "It's up to them what they want to do, and it's because they have to do for a living and, you know, I don't know what it's going to be like when they get out of high school," was one comment. As a group, these parents were typically apprehensive about the costs of postsecondary education.

The majority of interviewed parents spoke affirmatively about their interest in having more information and activities designed to help them participate meaningfully in their children's decisions, choices, and plans. Other parents said they could have made better use of the information that did arrive at home from the schools and that they could have more frequently attended school-sponsored programs. Where information and programs were available, the parents tended to respond favorably to them and use them, and they said they better understood the planning process.

The interview results suggest that the planning process takes place over a period of several years, not just in the latter high school years. The interviews also suggest that college-bound students are more likely than others to come from families where college is considered a valuable and worthwhile activity and/or where other family members (parents, brothers or sisters, and sometimes grandparents) have had college experiences.

We found that teachers, more often than secondary school counselors, were cited as major influences in students' career choices. Often it was the classroom experience — both the subject matter and the learning ac-

tivities — which had an important impact on choices of one career over another. "People in the field," as one student called them, someone in the business, a professional, or someone on a job where the students worked were also helpful sources of information. The interviews confirmed the survey findings that students made career choices at many different times, some choosing careers as early as junior high or middle school and others reaching decisions as late as their senior year.

A complete description of the results of the student-parent interviews is contained in Technical Report Number Three for the Study. Copies of that report are available upon request from PACU.

References

- Davis, J.S., "Parents: The Hidden Resource," *College Board Review*, 106, 1977-78, pp. 24-29.
- McDill, E.L., and J. Coleman, "Family and Peer Influences on College Plans of High School Students," *Sociology of Education*, 38, 1965, pp. 112-126.
- Pennsylvania Higher Education Assistance Agency, *A Survey of Plans for Postsecondary Education and Careers of Pennsylvania High School Seniors, Fall, 1975*. Harrisburg, Pa.: PHEAA, 1976.
- Rehberg, R.A., and D.L. Westby, "Parental Encouragement, Occupation, Education, and Family Size: Artifactual or Independent Determinants of Adolescent Educational Expectations?" *Social Forces*, 45, 1967, pp. 362-374.
- Sewell, W.H., and V.P. Shah, "Social Class, Parental Encouragement, and Educational Aspirations," *The American Journal of Sociology*, 73, 1968, pp. 559-572.
- Sewell, W.H., and J.M. Armer, "Neighborhood Context and College Plans," *American Sociological Review*, 31, 1966, pp. 159-168.
- Tillery, D., *School to College: Distribution and Differentiation of Youth*. Berkeley, Calif.: Center for Research and Development in Higher Education, 1965.
- Trent, J.W., and L.L. Medsker, *Beyond High School*. San Francisco: Jossey-Bass, 1968.



IV. WHAT THINGS ARE MOST CLOSELY RELATED TO STUDENTS' POSTSECONDARY PLANS

We knew that there are many things that can influence an individual student's postsecondary plans. We also anticipated that the influence of some of these things could not be enhanced or lessened. But in order to recommend actions to help increase education participation rates, we needed to find out what factors are most influential for most students under what circumstances.

There is a wealth of previous research on student postsecondary plans and activities to guide our inquiry. (This research is described in Technical Report Number Four of the Study, available upon request from PACU.) There are also theories of human behavior to help explain why various factors are influential. For the purposes of our Study design and analyses, we grouped the influential factors in four categories.

Community Factors: Such things as the types of jobs for which high school graduates are qualified, employment opportunities, and unemployment rates; differences in incomes for high school and college graduates; and the costs of postsecondary education in the students' communities were considered important. The theory says that if jobs are readily available to high school graduates, if earnings from these jobs are equal to or only slightly less than those available to college graduates, and if college costs are quite expensive, then students are less likely to believe that investing in college is worthwhile. They can get good-paying jobs without further education or the cost of education isn't worth the modest increased earnings they will get from attending college. So they don't go.

School Factors: Such things as the size of the students' high schools and high school classes and the amounts of money the district spends on their education were considered potentially influential. Smaller class sizes and greater per pupil expenditures were considered proxies for the "quality of education" made available to students. It was hypothesized that as their general "quality of education" increased, students would be more likely to plan on more education after high school.

Other school factors, which we called "environmental or condition" factors, were considered potentially influential. Measures of these factors were obtained from the Pennsylvania Department of Education's Division of Educational Quality Assessment.¹ The EQA program provided us with measures for the Study high schools of factors such as teacher satisfaction with relations with parents, disruption or discipline problems in the classroom, and teacher satisfaction with relationships with students. We hypothesized that these and other "environmental" factors might somehow be associated with differences in students' postsecondary plans.

Family Factors: Such things as parents' income and education were considered potentially important because they represent family socioeconomic status and status is closely related to student plans. The number of brothers and sisters enrolled in postsecondary education was considered important because families with prior educational experience beyond high school are more likely to send younger children to college. Parents' occupations and employment statuses were considered important



because they are measures of socioeconomic status and the family's current financial circumstances. And, of course, parental attitudes toward education for their children were considered potentially influential.

Personal Factors: Such things as the students' gender and racial/ethnic group membership were considered important because education participation rates are generally related to these characteristics. The students' levels of achievement, their educational aspirations, and their reasons for their plans were also considered potentially influential factors.

The senior survey gave us much of the needed data on family and personal factors. We relied on U.S. Bureau of the Census data for school districts for characteristics of the students' communities. These data were furnished by the Pennsylvania State Data Center.⁵ The data on school characteristics was furnished by the Division of Educational Quality Assessment.

To assess the relative influence of these factors on student plans, we used a statistical method known as regression analysis to measure the degree to which these factors are statistically related to student plans to attend four-year and two-year colleges. The numbers of students who planned on other activities were too small to produce reliable measures of the influence of these factors on their plans.

Because we considered the possibility that community and school factors might have different effects on students from different socioeconomic and racial/ethnic backgrounds, we studied six separate groups: low-, middle-, and high-income White students and low-, middle-, and high-income non-White students. ("Low-income" was defined as less than \$12,000; "middle-income", between \$12,000 and \$24,999; "high-income", \$25,000 or more.)

Our analysis showed that the single factor which has the strongest relationship to students' plans for college is their parents' preferences for their

postsecondary activities. Furthermore, this factor is most important for all student groups, regardless of their family income or racial/ethnic group membership.

The factor which was next most closely associated with students' plans for postsecondary education was their own degree aspirations. The higher their degree aspirations, the more likely they were planning to attend four-year colleges.

Nearly every other factor we analyzed was less than five percent as closely related to college plans as were student aspirations. Student aspirations were generally only half as closely related to their plans as parental aspirations.

There were only very slight relationships between the community factors and student plans. The relationships were so modest that they are of no practical consequence. This finding is important because it suggests that community economic factors have little bearing on most students' postsecondary plans. Put another way, the students' plans for postsecondary education are generally unrelated to the labor-market or economic conditions in their communities.

In only a few instances are the school factors we studied related to educational plans. White low- and middle-income students' attendance at schools that were judged by teachers to have good relationships with their communities was positively associated with these students' plans to attend four-year colleges.

References

- ¹Hertzog, J.F., et al., *EQA Manual for Interpreting Secondary School Reports*. Harrisburg, Pa.: Division of Education Quality Assessment, Pennsylvania Department of Education, 1983.
- ²Pennsylvania State Data Center, *Pennsylvania School Districts, 1980 Census Data Summary*, PSDC80-5-33. Middletown, Pa.: PSDC, Institute of State and Regional Affairs, Pennsylvania State University, The Capitol Campus, 1983.



V. CONCLUSIONS AND RECOMMENDATIONS

The Study identified several things that influence high school students' postsecondary plans. We expected this because decisions that involve activities as important to life as education and careers are nearly always influenced by many events and circumstances.

Even though decisions about postsecondary activities are uniquely personal and the things that influence these decisions are often idiosyncratic, one thing stands out as consistently the most influential. This is the parents' preferences for or attitudes about what the students should do when they finish high school. The influence of parental attitudes and preferences is pervasive, consistent, long-term and apparent as early as the freshman year. (Parental preferences probably influence plans before the ninth grade level, but the Study did not include younger students.)

The students' levels of ability, their high school programs and achievement and their family socioeconomic status have some modifying influences on their plans. Their educational and career aspirations and the information they receive about careers, educational opportunities, and financial aid to help shape and achieve their aspirations also influence students' plans. But in spite of the modifying influence of such things as ability or socioeconomic status or high school programs on students' plans, the attitudes and preferences of parents are consistently most influential.

The influence of parents on students' attitudes, plans and behavior should surprise no one who has reflected on the things which shaped his or her decisions as a child or young adult. We assumed that parental preferences would influence plans for postsecondary education because parents generally are required to provide support, both financial and otherwise, to children who go on to college or other schools.

But we were startled that parental preferences so dramatically act to moderate the suppressive effects that lower socioeconomic status and parental incomes have on postsecondary plans. When students from lower-income or otherwise disadvantaged families have parents who want them to go to college they are very likely to plan to do so, in spite of the sacrifices that the families might have to make for those plans to be achieved.

We did not expect indifferent or permissive parental attitudes to have such an apparently negative effect on plans for postsecondary education among the students with higher levels of ability and family socioeconomic status. Evidently parental indifference to their children's plans or parental willingness to let (or perhaps make) children decide for themselves what to do after high school has a suppressive effect on the student's ability to make any plans. (Recall that almost two-thirds of the students who were undecided about their plans had parents with permissive or indifferent attitudes.)

The programs students follow in high school are very closely related to their plans for postsecondary education. Students in academic programs are much more likely to plan to attend college, even when their levels of achievement are very low. Children from lower-status families are much less likely to enroll in academic programs than in general or vocational programs. However, when lower-

status students are enrolled in academic programs, they are almost as likely as their higher-status classmates to have parents who want them to continue their education and these lower-status students are almost as likely to have said this is what they will do.

We conclude that the single best way to increase Pennsylvania high school graduates' postsecondary education participation rates is to encourage positive parental attitudes toward more education for their children. Furthermore, because the influence of parents is so pervasive and extends throughout the high school years, efforts to create positive parental attitudes must begin in the first year of high school and extend through the senior year. It is most unlikely that participation rates can be increased without significant increases in the percentages of parents who want their children to continue their education. It is extremely unlikely that education participation rates can be increased without devoting much greater attention to students' career and education decisions at the lower grade levels and to the influence parents have on these decisions.

Recommendations for Secondary Schools and the Pennsylvania Department of Education

Improving the quality of elementary and secondary education will certainly enhance participation in postsecondary education because students who have successful educational experiences are very likely to desire more education. Under the initiative of Governor Dick Thornburgh, the Pennsylvania Department of Education recently published *Turning The Tide: An Agenda for Excellence in Pennsylvania Public Schools*, which offers recommendations for improving the quality of elementary and secondary education. Several recommendations are directly relevant to the enhancement of education participation rates.

The PDE report urges schools to provide better information to parents and students on skills required to enter college or secure a job. This Study found that student plans for postsecondary education are related to earlier career decisions and to student receipt of useful information on careers, postsecondary educational opportunities and financial aid. Therefore, the schools are urged to increase the quantity and quality of information in these areas that they make available to students and the parents and to deliver this information throughout the high school years.

RECOMMENDATION 1a: PDE should design a questionnaire for administration to students when they enter high school and again at the start of the junior year which assesses the students' knowledge of career and postsecondary educational opportunities, their career interests and plans, their postsecondary educational aspirations and plans, and their parents' preferences for their postsecondary activities.

Schools could use this survey data to counsel student enrollment in high school programs and courses which are consistent with their aspirations and abilities, to

counsel students and parents on what is required to achieve different educational and career objectives and to modify student and parent aspirations where it is appropriate to do so. The Department can use these data to monitor changes in student aspirations and plans over time and to modify school curricula and guidance programs where appropriate.

Because students' high school program choices are so closely related to their postsecondary plans, and because program choices are so closely related to students' socioeconomic statuses, more careful attention should be given by schools, students and parents to these program choices.

RECOMMENDATION 1b: Before entry level students are assigned to a specific curriculum or program, school officials should be required by law to explain thoroughly to students and their parents, in individual or group counseling sessions, what each program requires and involves and how a choice of any given program is likely to affect future educational and career opportunities. Parents should be required to sign a statement which indicates they understand the students' choice of program and approve of it.

Because parents are so influential in the students' postsecondary planning process and the plans themselves, they need more information from the schools on career and educational options and opportunities available to their children.

RECOMMENDATION 1c: Schools should assign some of their counseling staff the responsibility of regularly working with parents, especially those parents with indifferent or permissive attitudes about the students' postsecondary activities.

Counselors could work with parents through individual and group conferences and such things as "career and college day" activities to increase parental awareness of opportunities for their children. PDE can assist in these parent counseling activities by providing schools with publications which are written for parents and describe postsecondary education and career options. Postsecondary institutions and other organizations or agencies can help in this activity by preparing specially written materials for use by the schools.

We recognize that many school districts may not have sufficient counseling budgets or staff to handle the additional work with parents. We also recognize some school districts may be reluctant to provide such funds and staff solely on the basis of our recommendation. We are convinced that parent counselors will produce the desired effect. However, a demonstration of their effectiveness may be needed to convince all school districts.

RECOMMENDATION 1d: PDE should fund the employment of parent counselors in several schools with diverse characteristics and located throughout the Commonwealth, in the form of a pilot project which demonstrates how parent counselors can be used to improve the information made available to parents and students.

Available computer technologies make sophisticated career and college guidance materials more accessible and useful to students and parents than ever before. Several commercial software packages are already available and some are being used in Pennsylvania schools. The packages permit students to interact with the computer to obtain personalized data on careers and information on colleges that match their interests. Financial aid information is also available on some of these packages. This technology is a valuable supplement to individual counseling.

RECOMMENDATION 1e: Schools should obtain the hardware and software in microcomputer or other formats to provide their students with access to at least one of the computer-based college and career guidance systems.

It is technologically feasible to install remote computer terminals in high schools and link them to a mainframe at some central location. Some school districts already do this. Perhaps remote terminals could be linked to a mainframe at PDE housing a computer-based guidance system. This approach may be more efficient and cost effective than installing microcomputer-based systems in high schools. Because the Pennsylvania Higher Education Assistance Agency (PHEAA) already operates a computer network which links over 100 postsecondary and lending institutions and has experience with a system such as the one proposed here, perhaps PHEAA and PDE could jointly develop the network.

RECOMMENDATION 1f: PDE should establish a study committee comprised of school district and Department personnel, PHEAA staff, high school counselors and college admissions officers to explore the feasibility of developing and maintaining a centralized computer-based career and education guidance system. (See Recommendation III d.)

The current state of video technology makes it feasible to develop and expand upon existing media-based career guidance materials for use on video equipment at schools, libraries and other public facilities. Video cassette recordings, ten to fifteen minutes in length, which describe the significant aspects of different careers, what one does in those careers and what is required to enter them could be developed. These recordings would be most helpful to provide students with a visual description of certain careers and supplement the computer-based career guidance system or they could be used as separate guidance tools.

RECOMMENDATION 1g: PDE should assign staff to explore the possibility of purchasing existing video tapes for schools and the feasibility of establishing partnerships with professional associations, business and industry to develop video recordings of career information for use in counseling students and parents.

RECOMMENDATION 1h: School districts should obtain video cassette recorders for playing tapes of career information and other kinds of data which will become available.

We recognize that PDE could have some difficulty in administratively managing the implementation of at least some of our recommendations. Furthermore, we believe that increasing education participation rates is an educational goal which is so critical that it should be supported by assignment of an office at PDE to provide leadership in achieving it. Therefore, we strongly support the creation of an office to provide leadership in this matter, to work with other parties toward achievement of the goal, and to monitor the activities of the Department staff that are related to achieving the goal.

RECOMMENDATION II: The Secretary of Education should create the office of "Director of Postsecondary Education Participation Enhancement" to provide the Department staff with leadership on all activities related to enhancing postsecondary education participation rates and to coordinate Departmental work with all external parties on activities related to this goal.

Turning the Tide recommended that schools establish partnerships and cooperative relationships with businesses, institutions of higher education, human service agencies and volunteer groups to improve the quality of education students receive before and after graduation. We strongly support this recommendation because these partnerships could be used to provide students and parents with information and experiences which would help them make more informed educational and career choices.

For example, schools could develop relationships with local businesses to establish programs in which members of various occupations could address high school students on their career experiences. Local businesses and industries could furnish schools with computer hardware, video cassette recording equipment and other materials which could be used in educational and career guidance activities (See Recommendation VI). Schools could profit from the services of local volunteer groups in several ways which are related to expanding student and parental awareness of postsecondary education and career opportunities. Our formal recommendations in these matters are described in "Recommendations for Business, Industry, and Private Associations."

Recommendations for Postsecondary Educational Institutions

Enhancing education participation rates is a matter of changing students' and their parents' attitudes about the value of the educational experience. This process can be lengthy and the Study data has shown it should begin at the earliest high school grade level. Increasing the student and parent awareness of the value of education beyond high school is a kind of "marketing" process in that institutions target communication about their programs and the benefits of participating in them to specific groups of students and parents.

Marketing postsecondary education is not a new concept in Pennsylvania colleges and universities. Many institutions have developed successful programs which direct valuable information on their institutions to specific groups of potential students. With the potential problem of declining enrollments posed by decreasing numbers of high school graduates, increasing educational costs, and diminishing federal support of financial aid

programs to help students meet their costs, many institutions have adopted marketing plans to support and guide their recruitment and admissions activities.

But increased marketing and recruitment of individual institutions at the potential cost of reduced enrollments at other institutions is not our intention. The potential for increased institutional competition for Pennsylvania high school graduates is present, but destructive competition can be prevented in Pennsylvania's postsecondary enterprise. All institutions, and the Commonwealth, can be strengthened if, through individual and collective efforts, the proportion of Pennsylvanians who desire education beyond high school is increased.

More information is needed at lower grade levels by Pennsylvania students (and their parents) on postsecondary educational opportunities and the benefits of participation in postsecondary education. Institutions' admissions, recruitment and public relations staffs are a potentially useful source of such data. But these individual institutional staffs are currently overextended in their efforts to communicate with seniors and their parents. Thus it is difficult for individual institutions to commit staff time and resources to students at lower grade levels. However, if institutions pooled their staffs and reached cooperative relationships and agreements to devote time to communication with students at lower grade levels, the desired effect may be achieved.

RECOMMENDATION IIIa: Postsecondary institutions within the state's geographic regions of Pennsylvania should develop cooperative arrangements through which admissions staff and faculty on each campus would represent all institutions in that region in many activities directed toward enhancing the general awareness of available postsecondary opportunities. PACU staff and representatives of PDE should cooperate in taking leadership roles in developing these consortia and managing their activities.

The activities might include holding special college night programs for ninth or tenth grade students and families, arranging with counselors for group visits by ninth graders to campuses that are part of each cooperative agreement, and assigning an admissions representative to each high school in each region to handle correspondence or telephone communications with students and parents from that school. Counselors could post the address and phone number of the "ninth grade representative" for their region in a conspicuous place and refer questions about admissions requirements, financial aid, or curricular offerings to their regional "ninth grade representative."

The institutions' faculties represent the core of the "product" they are marketing. To give high school students exposure to faculty members, we urge postsecondary institutions to develop arrangements with secondary schools for professors and instructors to serve as guest lecturers for courses and/or assemblies at the schools. Such arrangements could be made through the regionally-based consortia described above or on an individual institutional basis.

Colleges and universities should sponsor Science Fairs, Computer Workshops, Music Appreciation Days, or other similar events which bring high school students to their

campuses. We also suggest that schools and colleges implement programs of "field trips" to bring students to campus for demonstrations or special lectures by their faculty. Almost any activity that increases student exposure to postsecondary institutions' campuses is likely to enhance student awareness of opportunities there. To the extent that it is possible to do so, institutions should involve parents in these activities.

Computer-based or media-based information on postsecondary opportunities should be as up-to-date and as accurate as possible. Misleading information is perhaps worse than no information at all.

RECOMMENDATION IIb: Postsecondary institutions should devote whatever resources are needed to the task of keeping current, comprehensive and accurate data on centralized data bases or files at PDE, PHEAA, and other agencies or associations that collect and disseminate these data. All institutions should carefully review and up-date their individual data on all the centralized files at least annually.

Although the primary responsibility in getting financial aid information to Pennsylvania's students and parents should be accepted by PHEAA, postsecondary institutions have an obligation to share this responsibility.

RECOMMENDATION IIc: Institutions should develop and disseminate information on their aid programs and policies to students and parents in the earlier as well as later high school grade levels. The types of information provided to students in latter grades should be more specific than the types provided to freshmen and sophomores. This information should include details on accurate costs of attendance as well as available aid programs and application procedures.

Many postsecondary institutions use direct mail technology to communicate with students. Reports of college-bound students receiving large amounts of mail from many colleges abound. However, little of this mail is directed toward parents and even less is addressed to parents' information needs. If parents with indifferent or permissive attitudes about their childrens' educational plans had more and better information, they would be more likely to support their childrens' plans and the children would be more likely to continue their education.

RECOMMENDATION IId: Postsecondary institutions should develop brochures and other printed materials especially addressed to parental information needs and disseminate this information to parents through direct mail technologies and other available means.

The apparent value of postsecondary education and its benefits have been diminished by mass media accounts of unemployed or underemployed alumni. These accounts have exaggerated, if not totally misrepresented, the actual situation regarding employment and other experiences of alumni. Student and parent "investment" in postsecondary education for their children still provides a significant financial return on dollars invested — not to mention the real and significant non-monetary returns earned from participation in postsecondary education.

RECOMMENDATION IIe: Postsecondary institutions should conduct surveys of their alumni activities or other types of research that demonstrate the success of the graduates and the contribution of education to that success. The results of this research should be disseminated to students, parents, secondary school personnel and representatives of the mass media on a regular basis.

At the beginning of our report we briefly noted that it is easier to study the postsecondary educational plans of high school seniors than other persons who have left school. It is also much easier to communicate with persons who are students and have institutional affiliations of some kind than with persons who have graduated from school and are not participating in any form of education.

We are concerned with increasing the participation rates of adults and encouraging them to continue their education. Adults regularly visit shopping centers and malls. In many communities these places have become social centers. Postsecondary institutions can use this situation to advantage in promoting education.

RECOMMENDATION IIf: Postsecondary institutions within the different regions should work with local businesses and secondary schools to plan and conduct "education and career fairs" at local shopping malls. These fairs would include presentations by representatives of schools and professional and career groups which describe various career alternatives. They could also include video cassette presentations.

Discussions with guidance counselors and college admissions officers (and the student-parent interviews) showed that "college and career day/nights" held at high schools and featuring representatives of postsecondary institutions, the military services and others are effective means of communicating with students and parents. However, these events are often poorly coordinated among high schools and their timing creates problems of attendance by the school and career representatives. The worst examples of this poor coordination require representatives to appear at opposite ends of the state on succeeding days or nights, resulting in wasteful use of staff travel expenses and time. These events could be coordinated within and among the PDE Intermediate Units.

RECOMMENDATION IIg: Postsecondary institutions and the Intermediate Units' central office staffs should develop annual schedules of high school college and career events within and among the Districts to minimize travel costs and scheduling conflicts.

Recommendations for the Pennsylvania Higher Education Assistance Agency

Well over half of all the currently enrolled postsecondary students in Pennsylvania receive some type of financial aid. Over 70 percent of the education-bound seniors said they had received or wanted to receive financial aid information from PHEAA or their intended institutions. Moreover, about 12 percent of the non-education-bound seniors said that lack of financial resources was their

primary reason for not planning to continue their education next year. So financial aid is obviously crucial to postsecondary attendance of the vast majority of Pennsylvania students and the perceived absence of aid inhibits the educational plans of more than a few.

However, only 75 percent of the education-bound, and just 68 percent of the non-education-bound, seniors said they had received *useful* financial aid information from their schools by almost midway through their senior years. Clearly there is a need for better distribution of more useful aid information to more students. Although dissemination of aid information is the shared responsibility of schools, postsecondary institutions, PHEAA, and the federal government's aid programs, it is believed that PHEAA should take the leadership role in this activity.

PHEAA annually distributes financial aid brochures by the hundreds of thousands to high schools and mails State Grant applications (which can be used to apply for State Grants, PELL Grants and campus-based aid) to every senior who has taken the College Board's Scholastic Aptitude Tests (SAT) or the ACT test of the American College Testing Program to apply for college admission. PHEAA also supports a network of six regional offices located throughout the Commonwealth whose staff regularly provide aid information, applications and other data to schools and colleges through personal visits, correspondence, formal presentations at "college days" or financial aid information workshops for counselors and a variety of other means. At the same time postsecondary institutions across the Commonwealth distribute financial aid information. But too many students and parents still do not receive the data they need. As one parent expressed in the Study interviews, "Financial aid is all a mystery to me. Why do you keep it such a secret?" The following recommended actions will help clear up the mystery of financial aid.

RECOMMENDATION IIIa: PHEAA should prepare special financial aid brochures and other printed materials for high school freshmen and sophomores and for the parents of all high school students to supplement the materials made available to juniors and seniors. In addition to distributing these materials through secondary school guidance offices, postsecondary institutions and the PHEAA regional offices, PHEAA should regularly mail information directly to the homes of students. Schools, school districts and/or Intermediate Units should provide PHEAA with lists of students' names and addresses to facilitate these mailings.

There are many rural and sparsely populated areas in Pennsylvania. Students and adults in these areas who might benefit from having more information about postsecondary opportunities and financial aid need better access to this information. Schools and postsecondary institutions are a source of information but additional sources are needed. PHEAA's regional offices, if expanded in terms of numbers, staff and services, could provide these services in the rural areas. These offices could supplement local school district efforts to provide information and guidance to prospective postsecondary students. They could also provide additional supportive materials to school guidance offices throughout their regions.

RECOMMENDATION IIIb: PHEAA should immediately form a study committee composed of its staff, school guidance counselors, financial aid administrators, and PDE representatives to study the feasibility of establishing educational opportunity centers in rural regions of the Commonwealth.

As we noted earlier, providing financial aid information is a shared responsibility of schools, postsecondary institutions and financial aid programs. But because it is a shared responsibility, there is often a duplication of efforts among the parties who are all trying to get more information to students. The development of a long-range and coordinated strategy among schools, colleges and PHEAA for the distribution of aid information might reduce duplication of efforts and increase the efficiency and effectiveness of the dissemination processes.

RECOMMENDATION IIIc: PHEAA should establish a committee comprised of members of its current Grant and Loan program advisory committees, the Pennsylvania Association of Student Financial Aid Administrators (PASFAA), representatives of secondary schools, and representatives of lending institutions to study the feasibility of developing a coordinated plan for disseminating financial aid information to students and parents throughout the Commonwealth.

We have recommended greater use of computer technology for publishing information on careers and postsecondary educational opportunities. This technology can also be used to furnish financial aid information to students and parents.

PHEAA is currently working with PACU to computerize the data contained in the publication, *Keys to Postsecondary Educational Opportunities in Pennsylvania*, which describes the admissions requirements, program offerings, and aid programs of Pennsylvania colleges and universities. These data will supplement the financial aid data already stored on PHEAA's computers. A pilot study linking terminals in high schools to these data on PHEAA's mainframe computer is in progress. It is believed that student and parent access to these data will prove most helpful. The pilot study may demonstrate that using mainframe computer-based technology, rather than microcomputer-based technology, represents a powerful and cost effective method of bringing information to students and parents.

RECOMMENDATION IIId: The PDE committee to study the feasibility of developing a centralized computer-based guidance system (See Recommendation If) should pay particular attention to the PHEAA pilot study. If the pilot study demonstrates the feasibility of a centralized computer-based network, then PHEAA should take responsibility for the technical aspects of establishing the system, for working with PDE to acquire and maintain the best software available, and for working with PDE, PACU, and the postsecondary institutions to make sure that all data on the system are the most current and accurate available (See Recommendation IIb).

PHEAA should support the use of computer and media technology by high schools and PDE to provide information to students and parents. Both technologies can provide data which cannot be furnished through printed materials or furnished inexpensively through professional staff members.

RECOMMENDATION IIIe: If it is determined that microcomputer-based guidance and information systems are more appropriate to meet the needs of Pennsylvanians than mainframe computer-based systems, PHEAA should develop financial aid information packages for use by those systems.

RECOMMENDATION IIIf: If and when it is determined that students and parents have wide access to video recording devices at their schools or elsewhere in their communities, PHEAA should develop recordings of financial aid information for use on those devices (See Recommendation Ih).

We recognize that high school guidance counselors represent the most readily accessible source of financial aid counseling for high school students. Not all students' questions can be anticipated and answered through computer-based or media technology. However, we also recognize that high school guidance counselors frequently do not have current financial aid data themselves and they sometimes do not understand the information that is available to them. They need more training in financial aid to better help students and parents.

A vehicle for training guidance counselors on financial aid programs, policies and procedures currently exists. The Pennsylvania Aid Administrators Training Program (PAATP), sponsored by PHEAA and PASFAA, annually provides workshops for guidance counselors. These workshops are well attended and their participant evaluations show that attendance is profitable. But there are insufficient numbers of these workshops and all too often guidance counselors are not released from school activities to attend them.

RECOMMENDATION IIIg: PHEAA and PASFAA should increase their support of the PAATP activities to offer more financial aid workshops in more locations for high school guidance counselors. School district superintendents should encourage counselor attendance at these workshops by providing counselors with released time from school duties and paying for travel expenses to attend them.

We understand that providing parents and students with accurate, comprehensive, and precise financial aid information is extremely difficult. The lack of stability in aid programs and the complexity of need analysis formulas and eligibility requirements make it hard to provide students and parents with the kinds of precise information they need. College costs and student expense budgets are also continually changing. These changes and the consequent confusion of students and parents are often made worse by misleading media reports of dramatic cutbacks in financial aid program funding. Thus it is difficult to furnish information which will assure students and parents that financial aid resources are or will be available to them. It is even more difficult

to furnish information to students who are freshmen and are four years from attendance in postsecondary institutions when financial aid situations may have changed by the time they enroll.

The General Assembly could take actions which would help to stabilize the financial aid picture in the Commonwealth (See Recommendation Vb). But regardless of whether stability in aid program funding and regulations is achieved in the immediate future, the necessity to furnish students and parents with better information and the best available information will remain extant. However, the recommendations we have offered here, if implemented, will do much to address this pressing need.

Recommendations for Business, Industry and Other Private Sector Organizations and Associations

At the beginning of this report we described some of the many benefits that businesses, industries, and other private sector organizations receive from a better educated population. We reaffirmed our position at the beginning of our recommendations that, because of these benefits, private sector organizations and associations have a responsibility to take actions to increase postsecondary education participation rates in the Commonwealth. The actions recommended here will help meet that responsibility.

Turning the Tide recommended that businesses implement "adopt a school" plans in which they pair up with students and staff in local school for a variety of purposes which range from internships and tutoring for students to purchasing computer equipment. These "adopt a school" plans could also involve local civic and professional associations. The activities of these partnerships or coalitions could include, in addition to those noted above, presentations to students (and parents) by practitioners of various careers on their career activities, requirements and benefits of their careers, and career paths. This would address one of the needs expressed by students in interviews for more communication with career personnel to "find out what working in (a given career) is really all about."

RECOMMENDATION IVa: Local businesses and industries should work with local civic and professional associations and the community's schools to establish "adopt a school" plans in which they actively support the schools, their programs and their students in all ways that are possible.

The overall purpose of these adoption plans is to increase communication and interaction between communities and schools with the intention that: (1) students will have a greater understanding of the knowledge, skills, and abilities required to achieve a productive role in the community; (2) schools will better be able to adapt their programs and services to meet community needs; and, (3) the community will better understand what schools are able to do to meet the needs of their groups, organizations, and associations.

Civic clubs and associations, such as the Parent Faculty Associations, American Association of University Women, Elks Clubs, Civitan Associations and others, can help students as we noted above by providing volunteers

to address students on their career experiences. One of the major sources of volunteers to accept this assignment is the parents of enrolled students.

RECOMMENDATION IVb: Parent Faculty Associations, or other similar groups, should work with school administrators to annually prepare lists of parent volunteers to address students on careers and career experiences.

Businesses, industries, unions and professional associations are a valuable source of data on career requirements and opportunities. These organizations know the opportunities available to students who might become employees or members.

RECOMMENDATION IVc: Businesses, industries, labor unions and professional associations should volunteer their services to PDE to help develop informational brochures and other materials which describe careers and employment opportunities to students and parents.

Shopping malls are the third most frequented public place (after schools and churches) in our society. This situation presents the opportunity for owners and tenants of shopping malls to devote space to "education and career centers" where information can be made available to students and parents. Such centers could be staffed by professionals employed by local school districts and/or postsecondary institutions and supported by computer- and media-based guidance and information systems described earlier.

RECOMMENDATION IVd: Owners and tenants of shopping centers or malls should donate space to "education and career centers" for use by local school districts, postsecondary institutions, and volunteer groups to provide students, parents and others with counseling and information services.

Many corporations, professional associations, unions and civic clubs offer scholarships and other types of financial aid to employees, members or their dependents, and to other deserving students. However, large numbers of these scholarships and aid dollars go unused each year due to lack of publicity or unreasonably stringent eligibility requirements.

RECOMMENDATION IVe: Private organizations should give greater publicity to the availability of their scholarship and aid funds and revise their eligibility requirements when large proportions of these funds go unspent each year. Private organizations which want to establish aid programs are urged to ask the Pennsylvania Association of Student Financial Aid Administrators for assistance in developing and administering these programs.

The places of employment of parents and potential adult students are locations where information about educational and career opportunities could be disseminated. Informational brochures, posters, and other bulletins could be displayed and distributed through corporations and businesses. To help address parents' needs for more information to help their children, employers could provide times and places for presentations on education and careers by local high schools' "parent counselors" and postsecondary institutions' representatives.

RECOMMENDATION IVf: Businesses, industries and other employers should provide employees with released time at their places of employment to hear presentations by local school and postsecondary institution representatives on career and educational opportunities.

Recommendations for the General Assembly

The preceding sections have offered recommendations for activities by schools, postsecondary institutions, governmental agencies and private businesses, industries and associations to enhance postsecondary education participation in Pennsylvania. It is appropriate to conclude with our recommendations to the General Assembly because many of the recommended activities will require support from public revenues. Perhaps it is even more appropriate to offer our concluding recommendations to the General Assembly because its members are elected to take actions which will enhance the Commonwealth's ability to survive, flourish and prosper. They are elected to promote the general welfare of the Commonwealth. It is unlikely that anything contributes more to the promotion of the general welfare of the Commonwealth than the knowledge, skills and abilities of its citizens. Thus it is the responsibility of the General Assembly to act to enhance the citizenry's levels of knowledge, skills and abilities through attendance at the Commonwealth's educational institutions. The following recommended actions will help to meet this responsibility.

RECOMMENDATION Va: The General Assembly should, to increase public awareness of the benefits of postsecondary education, declare a week in early spring of each year, "Postsecondary Education Appreciation Week."

This action is one of the simplest and least expensive that the General Assembly could take. Yet it may be one of the more effective. The publicity for this week would increase general public awareness of the contributions of postsecondary education and of Pennsylvania's educational institutions. The week could be used by institutions and businesses to sponsor "education and career fairs," by schools for visits to postsecondary campuses or for visits to schools by faculty to serve as guest lecturers at assemblies, by civic clubs and other association meetings as a forum for presentations on the contributions of postsecondary education to Pennsylvania, and by institutional chief executive officers to describe their institutions' services to various constituents.

Stability in the funding of Pennsylvania's financial aid programs is needed to help assure students and parents that sufficient financial aid resources will be available to meet their needs. Stability is also needed to provide accurate and precise information to prospective students and parents about program eligibility requirements and their probability of receiving aid. There are at least two ways that such stability can be achieved.

RECOMMENDATION Vb: The General Assembly should establish the State Grant program as an entitlement program and assure that all eligible and needy applicants are guaranteed a minimum State Grant award in any given year. The minimum award could be fixed as a percentage of need and/or costs of tuition and fees.

If this recommendation is not fiscally feasible, the General Assembly should guarantee the appropriation amounts to the State Grant program at least two years in advance of their expenditure. For example, funds that students would receive for use in the 1986-87 academic year should be guaranteed during the 1984 State Fiscal Year.

The development and implementation of a computer-based education and career guidance system and network (See Recommendation If) is likely to cost more than the resources that PDE, PHEAA and local school districts have available to spend on it. Therefore, resources from the General Revenue Fund will be needed.

RECOMMENDATION Vc: The General Assembly should appropriate funds to help provide Pennsylvania high school students with access to a computer-based education and career guidance system in their high schools. The funds should be appropriated to PDE and PHEAA to develop and implement a centralized and/or decentralized system, whichever is the more effective. Funds should also be appropriated to school districts to help them purchase the computer hardware and software necessary to implement the system.

It is unlikely that all school districts will have sufficient funds to purchase the video recording equipment necessary to implement the recommended media-based career and education guidance system. It is also unlikely that PDE will have sufficient current resources to purchase and/or develop recordings of material for use by the system.

RECOMMENDATION Vd: The General Assembly should appropriate funds to help local school districts purchase video cassette recording devices for use in a high school-based, but PDE and PHEAA supported, media-based career and education guidance system. Funds should also be appropriated to help PDE purchase or develop the recordings of information necessary to implement the system.

Computer- and media-based guidance systems will do much to enhance the information made available to students and parents on education and career opportunities. But professional guidance assistance is needed in the students' high schools. Pennsylvania is one of the

few states in the nation in which guidance counselors are not a mandated position on high school staffs. Thus some schools have not employed full-time counselors and others have employed far fewer than needed. It is nationally recognized that a 300 to 1 student to guidance counselor ratio is an acceptable norm.

RECOMMENDATION Ve: The General Assembly should pass legislation that requires every public high school in the Commonwealth to employ at least one certified guidance counselor for every 300 enrolled students.

We have made several recommendations to businesses and industries which, if followed, are likely to result in significant expenditures of private revenue. The General Assembly can help offset these losses and encourage greater action by the private sector.

RECOMMENDATION Vf: To promote cooperative arrangements between business and industry and local schools and postsecondary institutions, the General Assembly should pass legislation to furnish private firms tax incentives for contributions of money, equipment and services to both public and private educational institutions.

Concluding Remarks

This Study has shown that Pennsylvanian's rates of participation in postsecondary education are lower than those of most states and the national average. We have described why the rates are low. We have also made recommendations which, if implemented, are certain to alleviate the situation and increase the proportions of high school graduates who continue their education beyond high school. It is likely that there are other additional actions which can be taken. We urge all interested parties to suggest additional actions.

Each of our recommended actions and those recommended by others will require expenditures of time, energy, effort and money. But all interested and concerned parties will derive considerable benefits in exchange for their efforts. The members of the Commonwealth should take these actions in support of a common good for all, and in their own self-interest. We have nothing to lose by doing so — and we can all gain a brighter and more prosperous future.



APPENDIX A
Copies of the Survey Instruments



Survey of Plans for Education and Careers Student Questionnaire

Introduction

Secondary schools and colleges are very much interested in learning more about what high school seniors plan to do after they leave the 12th grade. They need this information to build the educational, financial assistance, and work programs you need and want. One way you can help them is by simply telling us what your plans are for the years after high school, and this survey form has been designed for that purpose. With your help we hope to make it possible for students to become what they want to be.

- Do not fill out the Student Identification Section below unless you are asked to do so by the person administering this questionnaire to you. Your answers will always be treated confidentially.
- After question 44, you will be asked to fill out **either**

Section B or Section C, depending on whether you intend to continue your education on a full-time basis soon after high school or go directly to work. Be careful to fill out the correct section. Do **not** fill out both sections.

- Boxes 76-91 on the answer form are set aside for what are called Local Questions. These are questions asked by a local school, school district, or agency, and they may appear on a separate sheet of paper inserted in your booklet. If you do not find any Local Questions in your booklet, your survey administrator will tell you if there are none for your group to answer.

- Complete the questionnaire as quickly as you can and try to be as open and honest in your answers as possible. Your answers will be very helpful to both educational institutions and other students like yourselves. Thank you for your cooperation.

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Student Identification Section

Do not complete this section unless asked to do so.

Please print.

(1) Name _____
(First Name) (Middle Initial) (Last Name)

(2) Home Address _____
(Street) (City) (State) (Zip Code)

(3) County of Residence _____ (4) Date of Birth _____
(Year) (Month) (Day)

(5) Name of High School _____

Instructions

After reading each question, write the code number of your answer in the appropriate box or boxes on the answer form below. The boxes on the answer form are numbered to correspond to each of the questions in this questionnaire. Please note that the code numbers of your answer to some questions consist of three digits, and a separate box is provided for each digit. Please look at the following sample questions taken from the questionnaire.

1. What sex are you?

0 - Male

1 - Female

If you are male, you would put the code number 0 in the box corresponding to question 1 on the answer form.

Sample:

☒ (answer code)

1 (question number)

46. What is the code number of the type of work you would like to be doing ten years from now?

* The directions given in the questionnaire instruct you to use List A on page 4 to find the code number. If you would like to be a bookkeeper ten years from now, you would put its code number, 132, in the boxes corresponding to question 46 on the answer form.

Sample:

132 (answer code)

46 (question number)

Please detach the answer form along the dotted lines and proceed to Section A. You may omit any item you feel is too personal.

Answer Form

Section A

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
33	34	35	36	37	38	39	40	41	42	43	44																				

Section B

45	46	47	48	49	50	51	52	53	54	55	56										
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Section C

57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75										
----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	--	--	--	--	--	--	--	--	--	--

Local Questions

Set no.

76	77	78	79	80	81	82	83	84	85	86	87	88
----	----	----	----	----	----	----	----	----	----	----	----	----

Set no.

89	90	91
----	----	----

* **Be sure** to put the code number of your answer to each question in the correct box. You may omit any question you feel is too personal.

Section A

1. What sex are you?

- 0—Male
- 1—Female

2. How do you describe yourself?

- 0—American Indian or Alaskan native
- 1—Black or Afro-American or Negro
- 2—Mexican American or Chicano
- 3—Oriental or Asian American or Pacific Islander
- 4—Puerto Rican
- 5—White or Caucasian
- 6—Other

3. On the average, how many hours *per week* are you working in a paid or unpaid job *during the school year* (September through May or June)?

- 0—None
- 1—Less than 5 hours
- 2—6 to 10 hours
- 3—11 to 15 hours
- 4—16 to 20 hours
- 5—21 to 25 hours
- 6—26 to 30 hours
- 7—31 to 40 hours
- 8—More than 40 hours

4. From the list below choose the type of program that comes closest to describing the one you are now in:

- 0—Academic or college preparatory
- 1—Agriculture
- 2—Business and office
- 3—Distributive education
- 4—General and other
- 5—Health
- 6—Home economics
- 7—Trade and industrial

• Using the choices below, how would you describe your grade average in each of the subject areas listed in questions 5 through 10?

- 0—Mostly A's (90-100)
- 1—Mostly B's (80-89)
- 2—Mostly C's (70-79)
- 3—Mostly D's (60-69)
- 4—Mostly below D's (below 60)
- 5—I did not take courses in this subject area

5. English

6. Foreign languages

7. Mathematics

8. Sciences

9. Social studies

10. Vocational education

11. Compared with other students in your high school class, how would you describe your achievement since beginning the ninth grade? I am in the

- 0—Top tenth
- 1—Second tenth
- 2—Second fifth
- 3—Middle fifth
- 4—Fourth fifth
- 5—Bottom fifth

• For questions 12 through 20 use the scale below to indicate how you would rate yourself in comparison with your classmates in the following school-related and career-related characteristics.

- 1—Extremely high
- 2—Above average
- 3—Average
- 4—Below average

12. Academic motivation (desire to succeed in school)

13. Mechanical ability (ability to work with tools, to fix and make things)

14. Artistic ability (ability to draw, sketch, dance, play a musical instrument)

15. Clerical ability (ability to keep accurate and neat records, to type and file)

16. Creative writing ability (ability to write stories and poetry, to use words well and imaginatively)

17. Scientific ability (ability to perform laboratory experiments, to understand and enjoy the work of scientists)

18. Mathematical ability (ability to work problems involving numbers)

19. Ability to get along with others (to be a good group or team member)

20. Ability to work with others (to organize or lead groups of people, to sell ideas)

21. What is the approximate total income of your parents or legal guardian before taxes this year? (Include income from all sources.)

- 0—\$6,999 or less
- 1—\$7,000 to \$11,999
- 2—\$12,000 to \$15,999
- 3—\$16,000 to \$19,999
- 4—\$20,000 to \$24,999
- 5—\$25,000 to \$29,999
- 6—\$30,000 to \$37,999
- 7—\$38,000 or more

22. What is the highest level of education completed by your father or male guardian?

- 0—Grade school
- 1—Some high school
- 2—High school diploma
- 3—Business or trade school
- 4—Some college
- 5—Bachelor's degree
- 6—Some graduate or professional school
- 7—Graduate or professional degree

23. Using the list in question 22, indicate the highest level of education completed by your mother or female guardian. Put the number in box 23 on the answer form.

24. How many of your brothers and sisters are dependent upon your parents for financial support? Put the number in box 24 on the answer form.

25. Next year how many of your brothers and sisters who are still dependents will be in college or similar educational programs? Put the number in box 25 on the answer form.

26. My father or male guardian is

- 0—Employed full time
- 1—Employed part time
- 2—Unemployed
- 3—Retired
- 4—Deceased

27. My mother or female guardian is

- 0—Employed full time
- 1—Employed part time
- 2—Unemployed
- 3—Retired
- 4—Deceased

28. Most of my family's income is from

- 0—Salaries or wages
- 1—Family-owned farm
- 2—Family-owned business
- 3—Public assistance
- 4—Retirement pension
- 5—Other (including income from investments and securities)

29. What is the occupation of the head of your household (father or mother or guardian—whichever is major source of support)? If the head of the household is currently unemployed, what is his or her regular occupation? Look at List A (Occupational Titles) on page 4 and find the title that most closely fits your head of household's occupation. Put the code number of that occupation in box 29 on the answer form.

30. Indicate the statement that comes closest to describing what your parents feel you should do after high school.

- 0—Attend a four-year college
- 1—Attend a two-year college
- 2—Attend a two-year college and then transfer to another institution
- 3—Attend a public technical school or institute
- 4—Attend a private business or trade school
- 5—Become a full-time homemaker
- 6—Get a full-time civilian job
- 7—Join the military
- 8—They have no strong feelings
- 9—They want me to do what I want to do

31. Using the choices below, indicate what you are most likely to do after you leave high school.

- 0—Attend a four-year college
- 1—Attend a two-year college
- 2—Attend a two-year college and then transfer to another institution
- 3—Attend a public technical school or institute
- 4—Attend a private business or trade school
- 5—Become a full-time homemaker
- 6—Get a full-time civilian job
- 7—Join the military
- 8—Take some time off, then decide
- 9—Don't know yet

• How well does each of the statements in items 32 through 42 fit your situation in terms of influencing your decision to do what you indicated in question 31?

- 0—This statement doesn't fit my situation at all
- 1—Fits my situation somewhat
- 2—Fits my situation very well

32. I need more education or training to obtain a satisfying job.

33. I can obtain a satisfying job without further education.

34. I am continuing my education in order to improve myself no matter what my eventual choice of career might be.

35. I want to make some money now.

36. I am anxious to begin working in my chosen career as soon as possible.

37. I am not sure what I want to do, and continuing my education might help me decide.

38. I am not sure what I want to do, and getting a job might help me decide.

39. I cannot afford to continue my education.

40. I was not admitted to any of the colleges to which I applied.

41. I plan to work soon after high school graduation, but I know I can continue my education at any time.

42. The opinions and plans of my friends were important in the decision I made.

43. What is the highest level of education you plan to complete beyond high school?

- 0—A specialized training program of two years or less (for example, electronics or laboratory technician)
- 1—A two-year Associate of Arts degree (A.A. or A.A.S.)

2—Bachelor's degree (B.A. or B.S.)

3—Master's degree (M.A. or M.S.)

4—Doctor's or other professional degree (such as M.D. or Ph.D.)

5—Other

6—Undecided

44. What was the single most important reason for your decision to do what you indicated in question 31 (i.e., what you plan to do after high school)?

0—Advice of my family (parents, brothers, sisters, etc.)

1—Advice and/or plans of my friends

2—Advice of my high school counselor or teachers

3—Current financial circumstances

4—Relationship to my intended career or future plans

5—Lack of information on other opportunities or choices available to me

6—Inadequate preparation or background to do anything else

7—Uncertainty about what I want to do

8—Results of aptitude or interest tests I took

9—None of the above

• If you are most likely going to begin your career after high school by working in a civilian job, joining the military, or becoming a homemaker on a full-time basis, please proceed to Section B below. Do **not** complete Section C.

• If you are most likely going to continue your education on a full-time basis, please proceed to Section C on page 5 of this questionnaire. Do **not** complete Section B. If your plans do not match precisely those just described, or if you are undecided about your plans after high school, please fill out **either** Section B **or** Section C, whichever you feel is most appropriate to your particular situation. Do **not** fill out both sections. Leave any questions blank that you cannot answer.

Section B

This section is only for those who are planning to begin their careers by going to work, joining the military, or becoming homemakers on a full-time basis soon after high school graduation.

• Look at List A (Occupational Titles) on page 4. It includes many career fields and gives each field a code number. Use the list to answer questions 45 and 46.

45. What is the code number of the type of work you are likely to be doing in the first year after you graduate from high school?

(continued on page 5)

List A. Occupational Titles

Clerical

- 131 Bank teller
- 132 Bookkeeper
- 133 Cashier
- 134 Key punch operator
- 135 Secretary or typist
- 136 Ticket agent
- 137 Other

Craftsman

- 161 Auto mechanic
- 162 Baker
- 163 Dressmaker/tailor
- 164 Electrician
- 165 Electronics-radio/TV repair
- 166 Machinist
- 167 Painter
- 168 Plumber
- 169 Telephone installer
- 170 Other

190 Farmer, farm manager

220 Homemaker

Laborer

- 251 Car washer
- 252 Construction worker
- 253 Farm laborer
- 254 Sanitary worker
- 255 Other

Manager, administrator

- 281 Buyer
- 282 Government official
- 283 Office manager
- 284 Restaurant manager
- 285 Sales manager
- 286 Other

Military

- 311 Career enlisted person
- 312 Career officer
- 313 Other

Operative

- 341 Assembler
- 342 Gas station attendant
- 343 Machine operator
- 344 Meat cutter
- 345 Production worker
- 346 Taxicab, bus, or truck driver
- 347 Welder
- 348 Other

Professional

- 371 Accountant
- 372 Actor, actress
- 373 Advertising, public relations
- 374 Artist
- 375 Clergyman
- 376 Dentist
- 377 Engineer
- 378 Lawyer
- 379 Librarian
- 380 Pharmacist
- 381 Physician

382 Registered nurse

- 383 Scientist
- 384 Social worker
- 385 Teacher, educational administrator
- 386 Veterinarian
- 387 Other

Proprietor, owner

- 401 Contractor
- 402 Restaurant owner
- 403 Small business owner
- 404 Other

Protective service

- 431 Fire fighter
- 432 Guard
- 433 Police officer, detective
- 434 Other

Sales

- 461 Insurance or advertising agent
- 462 Real estate broker
- 463 Sales clerk
- 464 Sales representative
- 465 Other

Service

- 491 Barber
- 492 Beautician
- 493 Food service worker
- 494 Janitor
- 495 Practical nurse
- 496 Private household worker
- 497 Waiter, waitress
- 498 Other

Technical

- 521 Computer programmer
- 522 Draftsman
- 523 Medical or dental technician
- 524 Other

46. What is the code number of the type of work you would like to be doing ten years from now?

47. Do you have any plans to continue your education?

0—No

1—Yes, on a part-time basis soon after high school

2—Yes, in a trainee program in the military

3—Yes, in on-the-job training

4—Yes, in an apprenticeship

5—Yes, in a two- or four-year college, a year or more after high school graduation

6—Undecided

48. Have you decided on a future career?

0—No

1—Yes

• If you answer **no** to question 48, please leave boxes 49 through 56 blank and proceed to Local Questions 76 through 91.

If you answered **yes** to question 48, please tell how much each of the factors in items 49 through 56 influenced your future career choice using the following response alternatives:

0—Was of no importance at all

1—Was of some importance in influencing me

2—Was of great influence

49. The location of the work

50. The money I expect to make

51. The skills I would use on the job

52. The kind of people I expect to work with

53. The opportunity to live the kind of life I want outside the job

54. The career field has a good reputation

55. Many jobs are open in the field

56. The work fits with the interests I have

Now that you have completed Section B, please answer the Local Questions 76 through 91.

Section C

This section is only for those who are planning to continue their education on a full-time basis after high school graduation.

• Look at List A (Occupational Titles) on page 4. It includes many career fields and gives each field a code number. Use this list to answer question 57.

57. What is the code number of the type of work you would like to be doing ten years from now?

• Look at List B (Education and Training Programs) on page 6. Use the code numbers of the fields in answering the following question.

58. What is the code number of the educational program that is your first choice for more education?

• Look at List C (Educational Institutions) that accompanies the Local Question sheet. Use the code numbers of each institution or type of institution in answering the following questions.

59. What is the code number of the institution that is your first choice to attend?

60. What is the code number of the institution that is your second choice to attend?

61. What is the code number of the institution that you are most likely to attend?

62. How well do you feel your high school prepared you to succeed in the institution you are most likely to attend?

0—Not well at all

1—Pretty well

2—Very well

• Using the response alternatives below, how important is each of the following factors in your selecting the postsecondary institution you are most likely to attend?

0—Not important

1—Somewhat important

2—Very important

63. The school is close to home

64. It is not expensive

65. It offers an advanced placement and/or credit by examination program which will permit me to skip some courses

66. It has a good reputation in my field of interest

67. I believe I can get financial aid there

68. My parents like it

69. My friends like it

70. My counselor or teacher suggested it

71. I believe I can get admitted there

72. It offers a good social life

73. It is far enough from home so that I feel I will be on my own

74. How much do you think the total cost will be of your first year at the institution you are most likely to attend? Include all expenses in your estimate—tuition, fees, room and board, books, travel, etc. Do not take into consideration any financial aid you may get.

0—Less than \$500 4—\$3,000-\$3,999

1—\$500 to \$999 5—\$4,000-\$4,999

2—\$1,000-\$1,999 6—\$5,000-\$5,999

3—\$2,000-\$2,999 7—\$6,000-\$6,999

8—\$7,000 or more

75. How much do you plan to work during your first year of college or school?

0—I don't plan to work 5—25-29 hours a week

1—Under 10 hours a week 6—30-34 hours a week

2—10-14 hours a week 7—35-39 hours a week

3—15-19 hours a week 8—40 hours or more

4—20-24 hours a week

Now that you have completed Section C, please answer the Local Questions 76 through 91.

List B. Education and Training Programs

Four-year programs

001 Accounting	020 Journalism
002 Agriculture and forestry	021 Law enforcement and corrections
003 Allied health professions (medical technology, physical therapy, dietetics, etc.)	022 Library science
004 Architecture	023 Mathematics
005 Art	024 Music
006 Biological and life sciences	025 Nursing (four-year degree program)
007 Business and management	026 Pre-law
008 Chemistry, physics, other physical sciences	027 Pre-medicine, pre-dentistry, and pre-veterinary medicine
009 Computer and information science	028 Pharmacy
010 Communications (radio and TV)	029 Philosophy and religion
011 Education—elementary	030 Physical education, health, and recreation
012 Education—secondary	031 Political science and government
013 Education—special	032 Psychology
014 Engineering	033 Public administration
015 English and literature	034 Social sciences (sociology, anthropology, geography, etc.)
016 Ethnic studies (black, Mexican American, etc.)	035 Social work and community services
017 Foreign languages	036 Theater and drama
018 History	037 Other
019 Home economics	038 Undecided

Programs usually requiring less than four years of study

Agriculture	Electronics and electrical	Technical
100 General	150 General	190 General
101 Agribusiness	151 Electrical construction and wiring	191 Aeronautical maintenance and repair
102 Agricultural equipment technology	152 Electrical technology	192 Air conditioning, heating, refrigeration
103 Floriculture and horticulture	153 Electronics technology	193 Appliance repair
104 Landscaping	154 Radio and TV repair	194 Automotive maintenance and repair
Art	Engineering	195 Chemical technology
110 General	160 General	196 Diesel technology
111 Commercial art	161 Architectural drafting	197 Machine repair
112 Graphic arts technology	162 Civil engineering technology and surveying	198 Machine tool repair
Business	163 Drafting and machine design	199 Marine technology
120 General	164 Industrial engineering technology	200 Mechanical technology
121 Accounting and bookkeeping	165 Tool design technology	201 Metallurgical technology
122 Clerical technology	Food Service	202 Production machining
123 Management	170 General	203 Welding technology
124 Sales distribution	171 Chef and food service supervising	204 Mining technology
125 Secretarial studies	172 Food administration	Apprenticeship
Computer and data processing	173 Institutional food preparation	(Working and training with craftsmen in the field)
130 General	174 Waiter and waitress service training	210 General
131 Computer technology	Health	211 Carpentry
132 Electronic data processing technology	180 General	212 Electrician
133 Key punch operating	181 Dental assistant training	213 Metalworking
Construction	182 Inhalation therapy	214 Plumbing
140 General	183 Nursing—practical, licensed	215 Printing
141 Building construction technology	184 Medical assistant training	216 Other trade
142 Plumbing and pipefitting	185 Nursing—registered	Miscellaneous
143 Masonry	186 X-ray technology	221 Building maintenance and custodian
	187 Orthopedic assistant training	222 Clothing and textiles
		223 Cosmetology
		224 Fire science and technology
		225 Hotel, motel, and club management
		226 Interior decorating
		227 Photography
		228 Police science and technology
		229 Printing technology
		230 Veterinary technology
		231 Other
		240 Undecided but probably less than 4-year program

LIST C - EDUCATIONAL INSTITUTIONS

INSTRUCTIONS: Listing of Individual Institutions or types of Institutions appear under each underlined heading. To answer Questions 59, 60, and 61 on Section C of the Questionnaire, put the code number of the college or school you wish to attend in the proper box on the Response Form.

PENNA. FOUR-YEAR PUBLIC UNIVERSITIES

001 Bloomsburg	007 Indiana U. of Pa.	013 Slippery Rock
002 California	008 Kutztown	014 West Chester
003 Cheyney	009 Lock Haven	
004 Clarion	010 Mansfield	020 Lincoln
005 East Stroudsburg	011 Millersville	021 Penn State-Hain Campus
006 Edinboro	012 Shippensburg	022 Temple
		023 U. of Pittsburgh-Hain Campus

BRANCHES OF 4-YEAR PUBLIC UNIVERSITIES

026 PSU-Allentown	034 PSU-K. of Prussia	043 PSU-All other campuses
027 Penn State-Beaver	035 PSU-New Kensington	044 Pitt-Bradford
028 Penn State-Schreind	036 Penn State-Oponts	045 Pitt-Greensburg
029 Penn State-Berks	037 PSU-Schenango Valley	046 Pitt-Johnstown
030 PSU-Capitol Campus	038 PSU-Schuylkill	047 Pitt-Titusville
031 PSU-Delaware Co.	039 PSU-Wilkes-Barre	048 IUP-Armstrong Co.
032 Penn State-Payette	040 PSU-Murthinton-Seranton	049 IUP-Punxsutawney
033 Penn State-Hazleton	041 Penn State-York	049 Clarion Univ.-Venango

PENNA. COMMUNITY COLLEGES

300 Allegheny County	305 Harrisburg Area	310 Philadelphia
301 Beaver County	306 Lehigh County	311 Reading Area
302 Bucks County	307 Luzerne County	312 Westmoreland County
303 Butler County	308 Montgomery County	313 Williamsport Area
304 Delaware County	309 Northampton County	

PENNA. TWO-YEAR COLLEGES

426 Harcum Junior Colg.	431 Mt. Aloysius Jr. Colg.	434 Pinebrook Jr. Colg.
427 Keystone Junior Colg.	432 Northeastern Christian Jr. Colg.	435 Valley Forge Military Academy
428 Lackawanna Junior Colg.		
429 Manor Junior Colg.	433 Pierce Jr. Colg.	

PENNA. FOUR-YEAR PRIVATE COLLEGES AND UNIVERSITIES

100 Academy of the New Church	132 Gratz College	162 Phila. College of Pharmacy and Science
101 Albright College	133 Grove City College	163 Phila. College of Textiles and Science
102 Allegheny College	134 Guyanede-Hervey College	164 Point Park College
103 Allentown College	135 Hahnemann Medical Colg.	165 Robert Morris College
104 Alliance College	136 Hahnemann-Allied Health	166 Rosemont College
105 Alvernia College	137 Haverford College	167 St. Francis College
106 American College	138 Holy Family College	168 St. Joseph's College
107 Antioch University	139 Immaculate College	169 St. Vincent College
108 Baptist Bible College	140 Jefferson Medical College of Thomas J. Jefferson Univ.	170 Seton Hill College
109 Beaver College	141 Juniata College	171 Spring Garden College
110 Bryn Mawr College	142 King's College	172 Susquehanna University
111 Bucknell University	143 Lafayette College	173 Swarthmore College
112 Cabrini College	144 Lancaster Bible College	174 Thiel College
113 Carlow College	145 LaRoche College	175 Thom. Jefferson Univ.-Allied Health Sciences
114 Carnegie-Mellon Univ.	146 LaSalle College	176 United Wesleyan
115 Cedar Crest College	147 Lehigh Valley College	177 Univ. Center at HMC
116 Chatham College	148 Lehigh University	178 Univ. of Pennsylvania
117 Chestnut Hill College	149 Lymnning College	179 University of Scranton
118 College Misericordia	150 Marywood College	180 Ursinus College
119 Concho College of Music	151 Mercyhurst College	181 Valley Forge Christian
120 Curtis Instit. of Music	152 Messiah College	182 Villa Maria College
121 Delaware Valley College	153 Moore College	183 Villanova University
122 Dickinson College	154 Moreau College	184 Washington and Jefferson College
123 Drexel University	155 Muhlenberg College	185 Waynesburg College
124 Dropsie College	156 Neumann College	186 Westminster College
125 Duquesne University	157 Erie School of Music	187 Widener College
126 Eastern College	158 Penna. College of Optometry	188 Wilkes College
127 Elizabethtown College	159 Phila. College of Art	189 Wilson College
128 Franklin and Marshall College	160 Phila. College of Bible	190 York College of PA.
129 Gannon College	161 Phila. College of Performing Arts	
130 Geneva College		
131 Gettysburg College		

OUT-OF STATE INSTITUTIONS

TYPE	DEL.	MD.	OHIO	N.J.	N.Y.	N.V.A.	SOME OTHER STATE
4-year Public	076	077	078	079	080	081	082
4-year Private	251	252	253	254	255	256	257
4-year Public	400	401	402	403	404	405	406
2-Year Private	476	477	478	479	480	481	482
Nursing or Allied Health Professions	751	752	753	754	755	756	757
Business, Trade or Technical	676	677	678	679	680	681	682

PENNA. AREA VOCATIONAL TECHNICAL SCHOOLS

00 A. W. Reattis	508 Forbes Road East	516 North Montco
01 Beaver County	509 Franklin County	517 Parkway West
02 Clarion County	510 Harrisburg-Steelton	518 Philadelphia
03 Dauphin County	Highpire	519 Pittsburgh
04 Eastern Montgomery County	511 Hasleton	520 Steel Valley
05 Erie City	512 Indiana County	521 West Wide
06 Erie County	513 McKeesport	522 Western Montgomery Co.
07 Fayette County	514 Monroe County	523 Wilkes-Barre
	515 North Fayette County	524 Another AVTS School

PENNA PRIVATE BUSINESS, TRADE, TECHNICAL AND VOCATIONAL SCHOOLS

600 Allentown Business School	631 McCarrie Schools-Phila.
601 American Institute of Drafting-Phila.	632 Median School-Pittsburgh
602 Antonelli School of Photography-Phila.	633 Monroeville School of Business
603 Art Institute of New Kensington	634 Nat'l Sch of Health Tech-Phila.
604 Art Institute of Philadelphia	635 New Kensington Commercial Schools
605 Art Institute of Pittsburgh	636 Palmer School, Inc.-Phila
606 Berean Institute of Phila.	637 Penn Commercial College
607 Business Careers Institute	638 Penn Tech. Instit-Pittsburgh
608 Central Penn Business School	639 Pennco Instit.-Bristol
609 Clarissa School-Pittsburgh	640 Pennsy Academy of Fine Art-Phila.
610 Computer System Institute	641 Penn Instit of Tech-Upper Darby
611 Craft School of Tailoring	642 Phila Sch of Office Training
612 Dean Institute of Technology	643 Phila Printing School
613 Delaware Valley Sch. of Trades	644 Phila Training Center
614 Duff's Business Institute - Pittsburgh	645 Pittsburgh Inst. of Aeronautics
615 Electronic Institutes-Harrisburg	646 Pittsburgh Tech Institute
616 Electronic Institutes-Pittsburgh	647 R.E.T. Electronic School-Kromoll
617 Erie Business Center	648 Rosedale Tech. Inst.-Pittsburgh
618 Erie Institute of Technology	649 Technician Training School-Pittsburgh
619 Gateway-Tech. Institute-Pittsburgh	650 Thompson Institute-Harrisburg
620 Greensburg Inst. of Technology	651 Tracy Warner School-Phila.
621 Russian School of Art-Phila.	652 Triangle Institute of Tech-Erie
622 ICM Sch of Business-Pittsburgh	653 Triangle Instit. of Tech-Greensburg
623 Johnson Sch of Technology-Scranton	654 Triangle Instit. of Tech-Pittsburgh
624 Keystone Secy & Busn Sch-Swarthmore	655 Washington Instit. of Tech.
625 Lincoln Tech Instit-Allentown	656 Welder Training-Cornwells Mtgs.
626 Lincoln Tech Instit-Phila.	657 Welder Training-Phila.
627 Lyon Sch of Busn-New Castle	658 Wheeler School-Pittsburgh
628 Lyons Tech Instit-Phila.	659 York Academy of Arts
629 Lyons Tech Instit-Upper Darby	660 York Tech Instit.
630 Martin Sch of Business	661 Yorktowne Busn. Instit.
	662 Another Private Voc-Tech School

PENNA HOSPITAL SCHOOLS

700 Abington Memorial Hosp.	716 Methodist Hosp. (Phila)
701 Allentown Hospital	717 Northeastern Hosp. (Phila)
702 Bryn Mawr Hospital	718 Ohio Valley Hosp. (McKees Rocks)
703 Chester County Hospital	719 Pittston Hospital
704 Chestnut Hill Hospital	720 Presbyterian Hospital (Phila)
705 Citizens General (New Kensington)	721 Roxborough Memorial Hospital
706 Community Med. Center (Scranton)	722 Seewickley Valley Hospital
707 Episcopal Hospital (Phila)	723 Shadyside Hospital (Pittsburgh)
708 Frankford Hosp. (Phila)	724 St. Agnes Medical Center (Phila)
709 Germantown Hospital	725 St. Francis Hospital (New Castle)
710 Hasleton State General Hosp.	726 St. Francis Hospital (Pittsburgh)
711 Jameson Memorial (New Castle)	727 St. Luke's Hospital (Bethlehem)
712 Lankenau Hospital (Phila)	728 St. Vincent's Hospital
713 St. Margaret Memorial (Pittsburgh)	729 Uniontown Hospital
714 Mercy Hospital (Pittsburgh)	730 Washington (PA) Hospital
715 Mercy Hospital (Scranton)	731 Western Pa. Hospital (Pittsburgh)
	732 Another Hospital School

SURVEY OF PLANS FOR EDUCATION AND CAREERS

12TH GRADE

LOCAL QUESTIONS BOOKLET

This booklet contains the local questions that are of special interest to Pennsylvania educators.

INSTRUCTIONS FOR LOCAL QUESTIONS

There are two sets of questions in this booklet. They are divided into sections that match the sections of the basic survey form which you have just completed.

IF YOU ANSWERED SECTION B of the basic survey, you will need to complete only SECTION B of the local questions. These will be questions that apply specifically to students who are not planning to continue their education on a full-time basis directly after graduation.

IF YOU ANSWERED SECTION C of the basic survey, you will need to complete only SECTION C of the local questions. These will be questions that apply specifically to students who are planning to continue their education on a full-time basis directly after graduation.

SECTION B

These questions are to be answered only by students who completed SECTION B of the Survey. You should answer these questions if you are not planning to continue your education on a full-time basis soon after graduation, for example, if you are planning primarily on getting a job, getting married, joining the military, etc.

DO NOT ANSWER SECTION C OF THE LOCAL QUESTIONS

76. Please enter the number "1" in the space for Set. No. on the Answer Form.
77. When did you first consider career possibilities?
- | | | |
|--------------------------|--|--------------------------|
| 0- Before the 7th grade | 1- During junior high or middle school | 2- During the 9th grade |
| 3- During the 10th grade | 4- During the 11th grade | 5- During the 12th grade |
| | 6- I have never considered a career | |
78. When did you make your present career decision?
- | | | |
|--------------------------|--|--------------------------|
| 0- Before the 7th grade | 1- During junior high or middle school | 2- During the 9th grade |
| 3- During the 10th grade | 4- During the 11th grade | 5- During the 12th grade |
| | 6- I have not made a career decision | |
79. Which of the following factors is most important to you in choosing an occupation?
- | | |
|--|--|
| 0- Possibility of good income | 1- Job security, always being able to have a job |
| 2- Meeting and working with friendly people | 3- The opportunity to use my physical capabilities |
| 4- The possibility of freedom to make my own decisions and be creative | 5- The possibility of doing work that will contribute to the improvement of people's lives |
| 6- The availability of job openings in my own home community | 7- Some other reason not indicated here |
80. How did you acquire the majority of the skills that you intend to use in your job after high school?
- | | |
|---|---|
| 0- From a high school program | 1- From volunteer service activities sponsored by the high school |
| 2- Volunteer service activities acquired by my own initiative | 3- Paid work experience after school or in summer |
| 4- A combination of answers 0 and 1 | 5- A combination of answers 0 and 2 |
| | 6- A combination of answers 0 and 3 |
| | 7- From some other source |
81. Which statement best describes the career information you receive from your high school?
- | | | | |
|-----------|---------------------|---------------|---|
| 0- Useful | 1- Partially useful | 2- Not useful | 3- Have not received any career information |
|-----------|---------------------|---------------|---|
82. Which statement best describes the information you have received from your high school about opportunities to continue your education after high school?
- | | | | |
|-----------|---------------------|---------------|--------------------------------------|
| 0- Useful | 1- Partially useful | 2- Not useful | 3- Have not received any information |
|-----------|---------------------|---------------|--------------------------------------|
83. Which statement best describes the information about student financial aid for college or other schools that you received from your high school?
- | | | | |
|-----------|---------------------|---------------|--|
| 0- Useful | 1- Partially useful | 2- Not useful | 3- Have not received any information about financial aid |
|-----------|---------------------|---------------|--|
84. How do you rate the general quality of the courses that you took at your high school?
- | | | | |
|--------------|---------|---------|---------|
| 0- Excellent | 1- Good | 2- Fair | 3- Poor |
|--------------|---------|---------|---------|
85. How well do you think the courses you have taken in high school have prepared you for the job you expect to have after high school?
- | | | | |
|--------------------------|---------------------|-------------------------|---------------------------|
| 0- Excellent preparation | 1- Good preparation | 2- Adequate preparation | 3- Inadequate preparation |
|--------------------------|---------------------|-------------------------|---------------------------|
86. How satisfied are you with the amount of practical work experience offered by your high school?
- | | | | | |
|-------------------|-----------------------|------------|--------------------------|----------------------|
| 0- Very satisfied | 1- Somewhat satisfied | 2- Neutral | 4- Somewhat dissatisfied | 5- Very dissatisfied |
|-------------------|-----------------------|------------|--------------------------|----------------------|
87. If you have an opportunity for employment after you finish high school, approximately how much do you expect to earn on your job?
- | | | |
|---------------------------------|---------------------------------|-------------------------------------|
| 0- From \$135 to \$149 per week | 1- From \$150 to \$199 per week | 2- From \$200 to \$249 per week |
| 3- From \$250 to \$299 per week | 4- From \$300 to \$349 per week | 5- From \$350 to \$399 per week |
| 6- From \$400 to \$449 per week | 7- \$450 or more per week | 8- Am not sure how much I will earn |

86. What was the single most important reason for your decision not to continue your education after high school?

0- Post high school education is not necessary for my career plans (including marriage)
1- Lack of financial resources to pay for educational costs
2- I have a good opportunity for employment upon graduation from high school
3- I need a break from school and going to classes
4- My grades are too low to be admitted to any college or school that I want to attend
5- I have not made a career decision and therefore do not know what course of study to take after high school
6- I want to travel around the country or the world
7- I am joining the military rather than getting a civilian job or going to college
8- Some other reasons not given above

YOU HAVE NOW COMPLETED THE SURVEY. TURN IN YOUR ANSWER FORM AND SURVEY BOOKLETS AS YOU HAVE BEEN INSTRUCTED BY THE SURVEY ADMINISTRATOR
THANK YOU FOR YOUR ANSWERS AND YOUR HELP

SECTION C

These questions are to be answered only by students who completed SECTION C of the basic survey. You should answer these questions if you are planning to continue your education on a full-time basis soon after graduation.

DO NOT ANSWER SECTION B OF THE LOCAL QUESTIONS

76. Please enter the number "2" in the space for Set, No. on the Answer Form.

77. When did you first consider career possibilities?

0- Before the 7th grade 1- During junior high or middle school 2- During the 9th grade
3- During the 10th grade 4- During the 11th grade 5- During the 12th grade
6- I have never considered a career

78. When did you make your present career decision?

0- Before the 7th grade 1- During junior high or middle school 2- During the 9th grade
3- During the 10th grade 4- During the 11th grade 5- During the 12th grade
6- I have not made a career decision

79. Which of the following factors is most important to you in choosing an occupation?

0- Possibility of good income 1- Job security, always being able to have a job
2- Meeting and working with friendly people 3- The opportunity to use my physical capabilities
4- The possibility of freedom to make my own decisions and be creative 5- The possibility of doing work that will contribute to the improvement of people's lives
6- The availability of job openings in my own home community 7- Some other reason not indicated here

80. Which statement best describes the career information you receive from your high school?

0- Useful 1- Partially useful 2- Not useful 3- Have not received any career information

81. Which statement best describes the information you have received from your high school about opportunities to continue your education after high school?

0- Useful 1- Partially useful 2- Not useful 3- Have not received any information

82. Which statement best describes the information about student financial aid for college or other schools that you received from your high school?

0- Useful 1- Partially useful 2- Not useful 3- Have not received any information about financial aid

83. How do you rate the general quality of the courses that you took at your high school?
- 0- Excellent 1- Good 2- Fair 3- Poor
84. How much financial help do you expect to receive from your parents toward total expenses (tuition, fees, room, board, books, spending money) during your first year of college or school after high school?
- 0- None 1- Room and board at home 2- Less than \$500 for the academic year 3- \$500 to \$999 4- \$1,000 to \$1,999
5- \$2,000 to \$2,999 6- \$3,000 to \$4,999 7- More than \$5,000 8- As much as necessary 9- I don't know
85. How much student financial aid from all sources do you think you will need to help you and your parents pay for the total expenses during your first year of college or school after high school?
- 0- None, I can pay for all my expenses 1- Less than \$500 2- \$500 to \$999 3- \$1,000 to \$1,999
4- \$2,000 to \$2,999 5- \$3,000 to \$3,999 6- \$4,000 to \$4,999 7- More than \$5,000 8- I don't have any idea
86. Have you received information about applying for student financial aid from the college or postsecondary school you plan to attend?
- 0- Yes, I have received information but do not intend to apply for aid
1- Yes, I have received information and I have or will apply for aid
2- No, I have not received information but would be interested
3- No, I have not received information and I am not interested
87. Have you received information about applying for a State Higher Education Grant from the Pennsylvania Higher Education Assistance Agency?
- 0- Yes, I have received information and will apply for a State Grant
1- Yes, I have received information but will not apply for a State Grant
2- No, I have not received information but would be interested
3- No, I have not received information and I am not interested
88. Have you received information about applying for a State Guaranteed Loan from the Pennsylvania Education Assistance Agency?
- 0- Yes, I have received information and will apply for a Guaranteed Loan
1- Yes, I have received information but will not apply for a Guaranteed Loan
2- No, I have not received information but would be interested
3- No, I have not received information and I am not interested

YOU HAVE NOW COMPLETED THE SURVEY. TURN IN YOUR ANSWER FORM AND SURVEY BOOKLETS AS YOU HAVE BEEN INSTRUCTED BY THE SURVEY ADMINISTRATOR
THANK YOU FOR YOUR ANSWERS AND YOUR HELP

STUDENT POSTSECONDARY PLANS AND ACTIVITIES STUDY

INSTRUCTIONS: This questionnaire asks several questions about you, your family, and your education and plans for the future. Please answer each question as honestly as you can on the Answer Form that will be given to you with this booklet. Your answers will be kept confidential and you are not asked to identify yourself in any way. But if you think that some questions are too personal or otherwise objectionable, leave them blank and go on to the next question.

After reading each question, write the code number of your answer in the appropriate box or boxes on the Answer Form. The boxes on the Answer Form are numbered to correspond to each of the questions on the questionnaire. Please note that the answer to Question 28 requires that you use three numbers and put each one in a separate box.

Before you begin, look at the following sample question taken from the questionnaire:

1. What sex are you?

0-Male 1-Female

If you are a male, you would put the code number "0" in the box corresponding to Question 1 on the Answer Form. Sample:

1. (answer code)

If you are a female, you would put the code number "1" in the box.

1. What sex are you?

0-Male

1-Female

2. How do you describe yourself?

0-American Indian 1-Black or Negro 2-Mexican American or Chicano

3-Oriental or Asian American 4-Puerto Rican

5-White 6-Other

3. From the list below choose the type of program that comes closest to describing the one you are now in:

0-Academic or College Preparatory 1-Agriculture 2-Business and Office

3-Distributive Education 4-General and Other 5-Health 6-Home Economics

7-Trade and Industrial

Using the choices below, how would you describe your grade average in each of the subject areas listed in Questions 4 through 9?

0-Mostly A's (90-100) 1-Mostly B's (80-89) 2-Mostly C's (70-79) 3-Mostly D's (60-69)

4-Mostly Below D's (below 60) 5-I did not take courses in this subject area.

4. English

5. Foreign Languages

6. Mathematics

7. Sciences

8. Social Studies

9. Vocational Educ.

10. Compared with other students in your class, how would you describe your achievement since beginning the seventh grade?

Top fifth $\left\{ \begin{array}{l} 0\text{-Top tenth} \\ 1\text{-Second tenth} \\ 2\text{-Second fifth} \end{array} \right.$ $\left\{ \begin{array}{l} 3\text{-Middle fifth} \\ 4\text{-Fourth fifth} \\ 5\text{-Bottom fifth} \end{array} \right.$

For questions 11 through 19, use the scale below to indicate how you would rate yourself in comparison with your classmates in the following school-related and career-related characteristics.

1-Extremely High 2-Above Average 3-Average 4-Below Average

11. Academic motivation (desire to succeed in school and classwork)
12. Mechanical ability (ability to work with tools, to fix and build things)
13. Artistic ability (ability to draw, sketch, dance, play a musical instrument)
14. Clerical ability (ability to keep accurate and neat records, to type and file)
15. Creative writing ability (ability to write stories and poetry, to use words well with imagination)
16. Scientific ability (ability to perform laboratory experiments, to understand and enjoy science)
17. Mathematical ability (ability to work problems using numbers)
18. Ability to get along with others (to be a good group or team member)
19. Ability to work with others (to organize or lead groups of people, to sell your ideas)

20. What is the approximate total income of your parents or legal guardian before taxes this year? (include income from all sources.)
 0-Less than \$7,000 1-\$7,000 to \$11,999 2-\$12,000 to \$15,999 3-\$16,000 to \$19,000
 4-\$20,000 to \$24,999 5-\$25,000 to \$29,999 6-\$30,000 to \$37,999 7-\$38,000 or More
21. What is the highest level of education completed by your father or male guardian?
 0-Grade school 1-Some high school 2-High school diploma
 3-Business or trade school 4-Some college 5-Four years of college
 6-Some graduate or professional school 7-Graduate or professional degree
22. Using the list in Question 21, indicate the highest level of education completed by your mother or female guardian. Put the number in Box 22 on the Answer Form.
23. How many of your brothers and sisters are dependent upon your parents for financial support? Put the number in Box 23 on the Answer Form.
24. This year, how many of your brothers and sisters who are still dependent will be in college or other similar educational programs? Put the number in Box 24 on the Answer Form.
25. My father or male guardian is:
 0-Employed full-time
 1-Employed part-time
 2-Unemployed
 3-Retired
 4-Deceased
26. My mother or female guardian is:
 0-Employed full-time
 1-Employed part-time
 2-Unemployed
 3-Retired
 4-Deceased
27. Most of my family's income is from:
 0-Salaries or wages 1-Family-owned farm 2-Family-owned business
 3-Public assistance or welfare 4-Retirement pension
 5-Other (including income from investments and securities)
28. What is the occupation of the head of your household (father or mother or guardian, whoever is the major source of support)? If the head of the household is currently unemployed, what is his or her regular occupation? Look at LIST A (Occupational Titles) on Page 4 and find the title that most closely fits your head of household's occupation. Put the code number of that occupation in Box 28 on the Answer Form.
29. Indicate the statement that comes closest to describing what your parents think you should do after you graduate from high school?
 0-Attend a four-year college
 1-Attend a two-year college
 2-Attend a two-year college and then transfer to another college
 3-Attend a public technical school
 4-Attend a private business or trade school
 5-Become a full-time homemaker
 6-Get a full-time civilian job
 7-Join the military services
 8-They have no strong feelings about what I should do
 9-They want me to do what I want to do
30. Using the choices below, indicate what you think you are most likely to do when you are done with high school.
 0-Attend a four-year college
 1-Attend a two-year college
 2-Attend a two-year college and then transfer to another college
 3-Attend a public technical school
 4-Attend a private business or trade school
 5-Become a full-time homemaker
 6-Get a full-time civilian job
 7-Join the military services
 8-Take some time off, then decide what to do
 9-I don't know yet what I'll do

Please use the three answers below to describe how well each of the statements in Question 31 through 40 fit your situation in terms of influencing your decision to do what you think you will be doing when you leave high school.

- 0-The statement doesn't fit my situation at all 1-The statement fits my situation somewhat
 2-The statement fits my situation very well

31. I need more education or training after high school to get a satisfying job.
 32. I can get a satisfying job without further education after high school.
 33. I plan to continue my education after high school in order to improve myself, no matter what my eventual choice of career might be.
 34. I want to make some money immediately after high school.
 35. I am anxious to begin working in my chosen career as soon as possible after high school.

36. I am not sure what I want to do, and continuing my education after high school might help me decide.
37. I am not sure what I want to do, and getting a job right after high school might help me decide.
38. I won't be able to afford to continue my education after high school.
39. I plan to work soon after high school, but I know I can continue my education at any time.
40. The opinions and plans of my friends are important in the decisions I have made about my plans for after high school.
41. What was the single most important reason for your decision to do what you think you will be doing when you leave high school?
42. What is the highest level of education you plan to complete?
 - 0-Only some high school 1-Will graduate from high school
 - 2-Specialized training program after high school which requires two years or less (for example, electronics or laboratory technician)
 - 3-Two-year associate of arts degree (A.A. or A.A.S.) 4-Four-year college degree
 - 5-Masters degree 6-Doctoral or professional degree (such as M.D. or Ph.D.)
 - 7-Other 8-I have not decided at this time
43. Which of the following factors is most important to you in choosing an occupation or career?
 - 0-The possibility of good income
 - 1-Job security, always being able to have a job
 - 2-Meeting and working with friendly people
 - 3-The opportunity to use my physical capabilities
 - 4-The possibility of freedom to make my own decisions and be creative
 - 5-The possibility of doing work that will contribute to the improvement of people's lives
 - 6-The availability of job openings in my own home community
 - 7-Some other reason not indicated here
44. When did you first consider career possibilities?
 - 0-Before the 7th grade 1-During the 7th grade 2-During the 8th grade 3-Just this year
 - 4-I have never considered a career
45. When did you make your present career decision?
 - 0-Before the 7th grade 1-During the 7th grade 2-During the 8th grade 3-Just this year
 - 4-I have not yet made any career decision
46. Which statement best describes the career informatin you have received from your school?
 - 0-Useful 1-Partially useful 2-Not useful 3-Have not received any career information
47. Which statement best describes the information you have received from your school about opportunities to continue your education after high school?
 - 0-Useful 1-Partially usefu 2-Not useful 3-Have not received any information
48. Which statement best describes the information about student financial aid for college that you received from your school?
 - 0-Useful 1-Partially useful 2-Not useful 3-Have not received any information
49. How would you rate the general quality of the courses that you are taking at your school?
 - 0-Excellent 1-Good 2-Fair 3-Poor

YOU HAVE NOW COMPLETED THE QUESTIONNAIRE. THANK YOU FOR YOUR ANSWERS AND HELP.

LIST A. OCCUPATIONAL TITLES

CLERICAL

121 Bankteller
122 Bookkeeper
123 Cashier
124 Key punch operator
125 Secretary or typist
126 Ticket Agent
127 Other

CRAFTSMAN

131 Auto mechanic
132 Baker
133 Dressmaker/tailor
134 Electrician
135 Electronics-radio/TV repair
136 Machinist
137 Painter
138 Plumber
139 Telephone installer
140 Other

141 FARMER, FARM MANAGER

150 HOMEMAKER

LABORER

161 Car washer
162 Construction worker
163 Farm laborer
164 Sanitary worker
165 Other

MANAGER, ADMINISTRATOR

171 Buyer
172 Government official
173 Office manager
174 Restaurant manager

175 Sales manager
176 Other

MILITARY

181 Career enlisted person
182 Career officer
183 Other

OPERATIVE

191 Assembler
192 Gas station attendant
193 Machine operator
194 Meat cutter
195 Production worker
196 Taxicab, bus, or truck driver
197 Welder
198 Other

PROFESSIONAL

201 Accountant
202 Actor, actress
203 Advertising, public relations
204 Artist
205 Clergyman
206 Dentist
207 Engineer
208 Lawyer
209 Librarian
210 Pharmacist
211 Physician
212 Registered nurse
213 Scientist
214 Social Worker
215 Teacher, educational
administrator
216 Veterinarian
217 Other

PROPRIETOR, OWNER

301 Contractor
302 Restaurant owner
303 Small business owner
304 Other

PROTECTIVE SERVICE

421 Fire fighter
422 Guard
423 Police officer, detective
424 Other

SALES

431 Insurance or advertising agent
432 Real estate broker
433 Sales clerk
434 Sales representative
435 Other

SERVICE

441 Barber
442 Beautician
443 Food service worker
444 Janitor
445 Practical nurse
446 Private household worker
447 Waiter, waitress
448 Other

TECHNICAL

451 Computer programmer
452 Draftsman
453 Medical or dental technician
454 Other

STUDENT POSTSECONDARY PLANS
AND ACTIVITIES STUDY

NINTH GRADE ANSWER FORM

- | | | |
|------------------------------|--|------------------------------|
| 1. ☐ | 18. ☐ | 35. ☐ |
| 2. ☐ | 19. ☐ | 36. ☐ |
| 3. ☐ | 20. ☐ | 37. ☐ |
| 4. ☐ | 21. ☐ | 38. ☐ |
| 5. ☐ | 22. ☐ | 39. ☐ |
| 6. ☐ | 23. ☐ | 40. ☐ |
| 7. ☐ | 24. ☐ | 41. ☐ |
| 8. ☐ | 25. ☐ | 42. ☐ |
| 9. ☐ | 26. ☐ | 43. ☐ |
| 10. ☐ | 27. ☐ | 44. ☐ |
| 11. ☐ | 28. ☐ ☐ ☐ | 45. ☐ |
| 12. ☐ | 29. ☐ | 46. ☐ |
| 13. ☐ | 30. ☐ | 47. ☐ |
| 14. ☐ | 31. ☐ | 48. ☐ |
| 15. ☐ | 32. ☐ | 49. ☐ |
| 16. ☐ | 33. ☐ | |
| 17. ☐ | 34. ☐ | |

APPENDIX B
Participating Secondary Schools

**Student Postsecondary Plans &
Activities Study**

Participants

Allegheny County

Alderdice Senior High School
2409 Shady Avenue
Pittsburgh, PA 15217

Langley Senior High School
Sheraden Boulevard
Pittsburgh, PA 15204

Peabody Senior High School
515 N. Highland Avenue
Pittsburgh, PA 15206

South Senior High School
S. 10th and Carson Streets
Pittsburgh, PA 15203

Keystone Oaks High School
1000 Kelton Avenue
Pittsburgh, PA 15216

Fox Chapel Area High School
611 Field Club Road
Pittsburgh, PA 15238

Sacred Heart High School
6202 Alder Street
Pittsburgh, PA 15207

North Catholic High School
1400 Troy Hill Road
Pittsburgh, PA 15212

Central Catholic High School
4720 Fifth Avenue
Pittsburgh, PA 15213

Beaver County

Aliquippa High School
Harding Avenue
Aliquippa, PA 15001

Center High School
Baker Road Extension
Monaca, PA 15061

Riverside High School
Ellwood City, PA 16117

Clarion County

Clarion-Limestone Area Junior Senior High School
R.D. 1
Strattanville, PA 16258

Clarion Area Junior Senior High School
219 Liberty Street
Clarion, PA 16214

Keystone High School
Beatty Avenue
Knox, PA 16232

Union High School
Baker Street Extension
Rimersburg, PA 16248

Dauphin County

Bishop McDevitt High School
2200 Market Street
Harrisburg, PA 17103

Central Dauphin East Senior High School
626 Kutherford Road
Harrisburg, PA 17109

Swatara Junior High School
1101 Highland Street
Oberlin-Steelton, PA 17113

Central Dauphin Senior High School
4600 Locust Lane
Harrisburg, PA 17109

Lower Dauphin High School
291 East Main Street
Hummelstown, PA 17036

Erie County

Fairview High School
7460 McCray Road
Fairview, PA 16415

Corry Senior High School
534 E. Pleasant St.
Corry, PA 16407

Mercyhurst Preparatory High School
538 E. Grandview Blvd.
Erie, PA 16504

Villa Maria Academy
2403 Westlake Road
Erie, PA 16505

Fayette County

Brownsville Area High School
Republic, PA 15475

Laurel Highlands Senior High School
300 Baily Avenue
Uniontown, PA 15401

Penna Manor High School
R.D. 2
Clymer, PA 15728
Homer-Center High School
Homer City, PA 15748

Lebanon High School
1000 South Eighth St.
Lebanon, PA 17042

Bishop Hoban High School
159 South Pennsylvania Blvd.
Wilkes Barre, PA 18701
Bishop O'Reilly High School
316 North Maple Ave.
Wilkes Barre, PA 18704-0346

Upper Merion High School
435 Crossfield Road
King of Prussia, PA 19406
Upper Perkiomen High School
201 W. Fifth St.
East Greenville, PA 18041-1598

Stroudsburg High School
1100 W. Main Street
Stroudsburg, PA 18360

Mercy Technical High School
2900 W. Hunting Park Ave.
Philadelphia, PA 19132
Cardinal Dougherty High School
2nd Street Above Godfrey
Philadelphia, PA 19120
Olney High School
Front and Duncannon Avenue
Philadelphia, PA 19120
Germantown High School
Germantown and High Street
Philadelphia, PA 19144

Wallenpaupack Area High School
Hawley, PA 18428

Indiana County

Saltsburg Junior-Senior High School
416 Market St.
Saltsburg, PA 15681
Marion Center High School
Marion Center, PA 15759

Lebanon County

Northern Lebanon Junior Senior High School
Fredericksburg, PA 17026

Luzerne County

Wyoming Area Senior High School
Memorial Street
Exeter, PA 18643
Crestwood High School
281 S. Mountain Blvd.
Mountaintop, PA 18707

Montgomery County

Bishop Kenrick High School
Arch Street and Johnson Hwy.
Norristown, PA 19401
Lansdale Catholic High School
7th St. and Lansdale
Lansdale, PA 19146

Monroe County

Philadelphia County

High School for Girls
Broad and Olney
Philadelphia, PA 19141
Martin Luther King High School
Stenton Ave. and Haines St.
Philadelphia, PA 19138
Roxborough High School
Ridge Ave. and Fountain St.
Philadelphia, PA 19128
Walter B. Saul High School
7100 Henry Avenue
Philadelphia, PA 19128

Wayne County

Western Wayne High School
R.D. -2
Lake Ariel, PA 18436